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ORIGINAL ARTICLES

The Treatment of Scarlet Fever with Dochez's Anti-scarlatinal Serum*

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In a preliminary report on the treatment of scarlet fever with Dochez's scarlatinal antistreptococcic serum by Blake, Trask, and Lynch[1] it was stated that the serum had been shown (1) to possess the capacity to blanch the scarlet fever rash locally at the site of an intracutaneous injection and (2) to bring about a prompt cure of the disease within twelve to thirty-six hours after its administration. Continued use of the serum in the treatment of scarlet fever has thoroughly confirmed our preliminary impressions concerning its therapeutic value. In addition to the 13 cases cited in our previous report, 13 more cases have now been treated making a total of 26, with prompt cure in all but one. Not only has the serum been effective in early uncomplicated cases, but also in cases with septic complications. Of the cases so far treated 20 were early uncomplicated cases treated on or before the fourth day of the disease, 6 were cases with septic complications. Of the first group (Table 1) 1 was extremely toxic, 6 were mild. Of the latter group (Table 2) 2 were extremely severe, 2 very severe, and 2 moderately severe. In 21 of the 26 cases a single intramuscular injection of 35 to 90 cc. of serum sufficed to bring about a prompt recovery within 12 to 24 hours. In only three of these was more than 50 cc. used. Of the remaining 5 cases, 1 of which was extremely toxic, 4 of which 4 were very toxic, 9 were moderately severe, and had septic complications, 2 received 2 injections of 50 cc. each, 1 received 3 injections totalling 185 cc., 1 received 4 injections totalling 195 cc., all with prompt recovery, and 1, an extremely toxic and septic case with ulcerative tonsillitis, bull neck, thrombophlebitis, and streptococcus septicemia, received a single injection of 40 cc. on the fifth day of the disease without benefit. Observations which are presented below suggest that the larger amounts of serum were in excess of what was actually needed to effect recovery.

Table 1. Summary of Early Cases of Scarlet Fever without Septic Complications Treated with Dochez's Antiscarlatinal Serum.

Case	Sex	Age	Clinical Severity	Day of Disease	Amount of Serum	Result	Complications
1. M.R.	F	6	Extremely toxic	3	195 cc.	Cured 36 hrs.	None
2. G.McE.	F	26	Very toxic	2	60 cc.	" 24 hrs.	"
3. C.M.	M	10	" "	3	80 cc.	" 24 "	Otitis media, acute. Acute nephritis, mild. Recovered.
4. E.F.	F	31	" "	4	40 cc.	" 12 "	None
5. L.V.	F	24	" "	4	90 cc.	" 18 "	"
6. E.R.	F	14	Moderately severe	2	50 cc.	" 24 "	"
7. M.D.	F	10	" "	2	50 cc.	" 18 "	"
8. L.S.	F	25	" "	2	35 cc.	" 18 "	"
9. C.F.	M	18	" "	3	50 cc.	" 18 "	"
10. A.F.	F	6	" "	3	40 cc.	" 16 "	"
11. E.E.	F	25	" "	3	45 cc.	" 12 "	"
12. A.D.	F	7	" "	3	50 cc.	" 15 "	"
13. R.W.A.	F	34	" "	3	50 cc.	" 24 "	"
14. L.W.	F	25	" "	4	50 cc.	" 12 "	Acute pleuritis(?) mild. Recovered.
15. B.C.	M	15	Mild	2	50 cc.	" 16 "	Cerv.adenitis, mild. Recovered.
16. M.C.	F	8	"	3	45 cc.	" 14 "	None
17. J.D.	M	6	"	3	50 cc.	" 16 "	"
18. F.M.	F	27	"	3	35 cc.	" 18 "	"
19. A.W.	F	21	"	4	50 cc.	" 14 "	"
20. W.M.	M	17	"	3	35 cc.	" 18 "	"

Although the therapeutic value of the serum has appeared to us unquestionable merely from clinical observation of the cases treated it has

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seemed important to provide, if possible, further evidence in support of our clinical impressions. In order to do this an effort has been made to show (1) that a specific toxin or toxic substance is present in the blood in scarlet fever, (2) that the toxic substance disappears from the blood promptly after serum treatment, and (3) that the serum of the treated patient acquires the capacity to produce a positive Schultz-Charlton rash extinction test within a few hours after intramuscular injection of Dochez's serum, a capacity which is not ordinarily acquired until comparatively late in convalescence.

Table 2. Summary of Cases of Scarlet Fever with Septic Complications Treated with Dochez's Antiscarlatinal Serum.

Case	Sex	Age	Clinical Severity	Day of Disease	Amount of Serum	Result	Additional Complications
					cc.		
21.N.D.	M	3	Extremely toxic and septic. Thrombophlebitis Streptococcus Septicemia. Ulcerative tonsillitis	5	40	Died 8th day.	
22.J.M.	F	22	Extremely severe Cervical adenitis. Edema of neck.	6	185	Cured 24 hrs.	None
23.A.C.	M	3	Very toxic. Acute purulent simusitis.	4	50	Cured 16 hrs.	None
24.A.D.	F	1½	Very toxic. Acute sup. otitis media (rt.). Acute purulent simusitis.	5	40	Cured 24 hrs.	Acute otitis media Acute mastoiditis? (left) 3rd week. Recovered.
25.J.I.	F	24	Severe, moderately toxic. Peritonsillar abscess(rt.) Cervical adenitis.	2 (?)	100	Cured 60 hrs.	None
26.A.Z.	F	33	Severe, moderately toxic. Ulcerative tonsillitis Cervical adenitis.	5	100	Cured 48 hrs.	None

As recently reported by Trask and Blake[2], it has been found that a toxic substance can be demonstrated in the blood of patients acutely ill with scarlet fever by means of intracutaneous injections of the patient's serum in supposedly susceptible persons who have not had scarlet fever and whose serums fail to blanch the rash in scarlet fever. The reaction caused by this substance consists of a bright red local erythema, varying from 20 to 70 mm. in diameter, of one to four days duration. The severer reactions are moderately indurated and tender, and are followed by pigmentation and desquamation. They are similar to the local reactions which have been produced by Dick and Dick[3] with filtrates of scarlatinal streptococcus cultures. Control injections in supposedly insusceptible persons whose serums blanch the rash in scarlet fever cause no reaction. The blood serums from 19 cases of scarlet fever (Table 3) have been tested for the presence of this toxic substance by intracutaneous injection of 0.3 cc. of serum in two groups of human volunteers. Group A consisted of supposedly susceptible individuals whose serums had been shown not to blanch the rash in scarlet fever, Group B of supposedly insusceptible individuals whose serums had been shown to blanch the rash. 12 of the 19 scarlet fever serums, all with two exceptions from relatively severe cases, gave positive reactions in members of Group A, negative reactions in members of Group B. 7, all with two exceptions from relatively mild cases, gave negative reactions in members of Group A, and were therefore not tested in members of Group B. It has, furthermore, been shown that this toxic substance, present in the blood during the acute stage of scarlet fever, disappears with onset of convalescence. In some cases it is not only present in the blood, but is also excreted in the urine. It is neutralized by in vitro incubation with a human blanching serum or with Dochez's antiscarlatinal serum, but not by a non-blanching human serum nor by normal horse serum.

Table 3. Test for Toxic Substance in Scarlet Fever Blood by Intracutaneous Injection in Man.

Test Subjects	Blanching power of Serum.	Scarlet Fever Serums 0.3 cc. intracutaneously			
		Local reaction			
		+ + +	+ +	+	−
Group A (susceptible)	−	3	4	5	7
Group B (insusceptible)	+	0	0	0	13*

*Six of the seven serums giving negative reactions in members of Group A were not tested in members of Group B.

With these facts established it has been possible to show that the toxic substance present in the blood prior to serum treatment is no longer demonstrable within a few hours after intramuscular injection of Dochez's serum. In other

words it has been completely neutralized in vivo. In order to demonstrate this fact samples of serum have been collected from patients just prior to serum treatment and at frequent intervals after treatment. These have been tested for toxic substance by intracutaneous injection in persons known to be susceptible. The results of this study are shown in Table 4. Case C. M., very toxic, treated on the third day of the disease is especially instructive as it will be seen that the toxic substance had disappeared within 4 hours after the administration of serum.

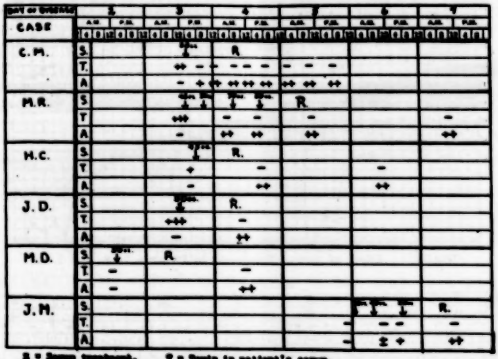

TABLE 4. Disappearance of Toxin and Appearance of Antitoxin in Blood of Scarlet Fever Patients following Serum Treatment.

Simultaneously with these observations the samples of serum collected before and after treatment have been tested for their capacity to produce a positive Schultz-Charlton rash extinction test, with the belief that a positive test would indicate the presence of an excess of antitoxic substance in the patient's serum and perhaps provide some guide as to the proper amount of serum to be used in treatment. As shown in Table 4 all the samples collected after treatment blanched the rash in scarlet fever patients. In cases M. R. and J. M. it seems probable that the large amounts of serum given were unnecessary inasmuch as the patients' serums already contained an excess of antitoxic substance at the time the last serum treatments were given. Case C. M. indicates very clearly the rapidity with which the toxic substance was neutralized and an excess of antitoxic substance was established in the circulating blood.

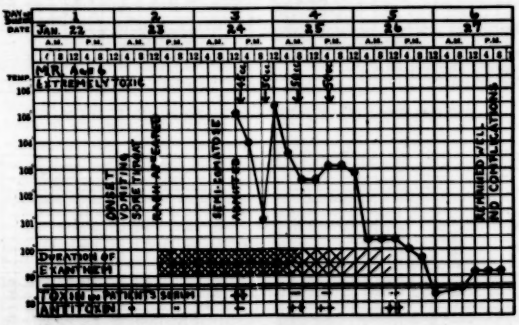

CHART 1. Effect of Serum Treatment in Patient M. R.

The clinical evidence in support of the therapeutic value of Dochez's serum must naturally depend to a considerable extent on actual observation of the cases. In the early uncomplicated cases the most striking effects are a critical fall of temperature and pulse rate to normal within 12 to 18 hours, a rapid and complete fading of the rash within 12 to 24 hours, rapid improvement in the angina, and prompt disappearance of all toxic manifestations. In later uncomplicated cases the effects are the same except that due to pigmentation of the skin the

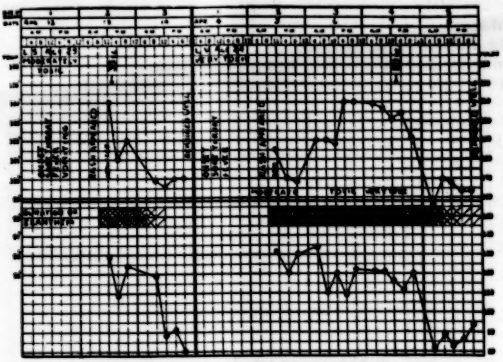

CHART 2. Effect of Serum Treatment in Patients L. S. and L. V.

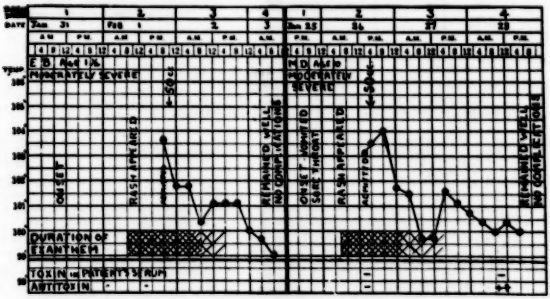

CHART 3. Effect of Serum Treatment in Patients E. B. and M. D.

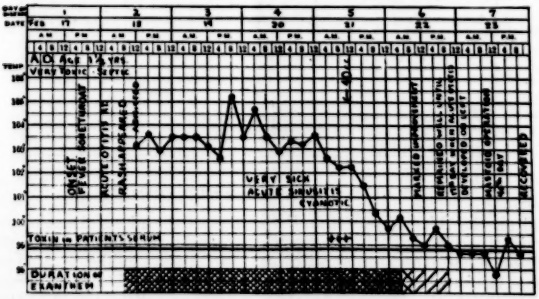

CHART 4. Effect of Serum Treatment in Patient A. D.

pattern of the rash remains visible for a longer period. In the limited number of cases with septic complications that have been treated the results have been equally striking though not always quite so prompt. Charts 1 to 4 illustrate the clinical effects as well as they can be demonstrated by graphic methods. An insufficient number of cases has been treated to afford any evidence with respect to the value of the serum in preventing the late complications of scarlet fever. It is our belief and hope that these will be greatly reduced, but only an extended trial through a number of years can determine this point.

SUMMARY

A clinical and laboratory study of Dochez's antiscarlatinal serum has shown that it is a valuable therapeutic agent in the treatment of scarlet fever. The observations which warrant this conclusion are as follows:

1. Intracutaneous injection of the serum in patients with scarlet fever produces a local blanching of the rash at the site of the injection.

2. Intramuscular injection of the serum in therapeutic doses early in the disease is followed by rapid clinical cure as evidenced by critical fall of temperature and pulse to normal, rapid fading of the exanthem, and prompt return to a state of well being.

3. The specific toxic substance present in the blood of patients with scarlet fever is neutralized in vitro by Dochez's serum. It promptly disappears from the blood following serum treatment.

4. The blood serum of scarlet fever patients acquires the capacity to blanch the rash in scarlet fever within a few hours after serum treatment.

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The Massachusetts Medical Society

MEETING OF THE SECTION OF HOSPITAL ADMINISTRATION AT SWAMPSCOTT

June 6, 1924

THE RELATION OF THE TEACHING HOSPITAL TO THE MEDICAL SCHOOL

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It is fortunate for the purposes of this paper that one no longer has to defend the existence of the teaching hospital, or to offer arguments in favor of this institution, since as a result of evolutionary changes in medical education the teaching hospital has proved its worth. It is perhaps as well, however, to take this opportunity to survey the situation and see if the present relations between the medical school and hospital are properly adjusted to bring about the ultimate best for education in its broadest sense.

Definitions serve a useful purpose in limiting discussion, but a definition of what constitutes a teaching hospital would have, as Mark Twain said about rules of German grammar, more exceptions to it than instances of it. We can only say that such a hospital is an educational institution which incidentally cares for the unwell. I say incidentally, as I believe the time has come to correct a misapprehesion. It is usually said that the first object of the hospital is the care of the individual patient, but this in reality should not be the case. The primary function of such a hospital is educational. The individual patient is in the hospital for study, in order that the results obtained from such study of his case, together with those of similar cases, may be handled with the view of formulating ideas for the prevention, control and even rure of the condition found in the group. It is easily seen that the individual patient would not suffer in any way as a result of this arrangement, since in his case the best information available would be applied to his condition. More recent observations would be at hand and on the whole it would seem that such an individual would really be in a better position than if his case were handled in a non-teaching institution in a routine way.

I think that this idea has been developing gradually, but has been kept in the background, since, as a rule, the hospital and the medical department of the university have been largely independent of each other, both as regards their administrative control and their financial support. Under such conditions the medical staff of the hospital is often somewhat reluctant to suggest material departure from locally established custom and tradition contributes largely to inertia in these matters. Betterment can only come about gradually and after frank discussion in bodies such as this.

I realize at the outset the differences in the view point of the hospital administrator and his board of trustees on the one hand and that of the educator and the university on the other, but it is evident that these view points must be drawn more closely together, so that lines of action may more nearly coincide. Under an ideal arrangement the hospital and medical school would be jointly controlled and both under the university. Trustees of hospitals are properly conservative about arrangements which they feel might tend to subordinate the objects for which funds were given. University authorities are backward about assuming additional responsibilities. It must, therefore, be made clear to both that the objects sought are directly in line with what each is attempting to accomplish.

The expense of medical education is already well-known to you, and I am sure that the expense of properly maintaining the hospitals is also very much in your mind. Many of our hospitals are beginning to realize that a larger

number of full-time workers is necessary and in those places where investigation is being conducted those in authority are well aware of the expense. Under the university the demands will certainly be no less, but it would seem that the widened appeal might be more productive of results than in the case of either medical school or hospital taken separately. I do not mean by this that any attempt should be made to discourage giving of money for specific purposes, for it will always be true that personal interest in a given problem will be most effective in obtaining support.

Our present difficulties are largely the result of the rapid and somewhat uneven development of the country, particularly in education, but also in economics and politics. Needs have arisen and have been met, but without a very consistent plan. Public spirited individuals have given generously of time and money to many projects for general welfare and have established many endowments to perpetuate activities of deserving causes. This has been true particularly in the east, in the sections settled earlier. While the western states have been guided somewhat by eastern example, they have seen fit to take over parts of the educational program as state activities, so that each citizen contributes through a tax to the support of state universities in all their departments.

State support of universities and hospitals is the exception rather than the rule in the eastern states. The school and hospital, therefore, while working somewhat in harmony, have gone each its own way, but there is a feeling that a definite correlation of hospital and school is necessary, as evidenced by a news note in *Science* for May 23rd of the present year, which states at Johns Hopkins a joint commission has been appointed from school and hospital to bring about close association.

If we admit, as I think we must, that the hospital is an educational institution, the question of its relationships must be considered, since, as Capen[1] has forcibly pointed out, "It is impossible to isolate an educational process." The medical school naturally appears to be in the principal role, but there are others involved, for each well-rounded hospital maintains its training school for nurses and its social service department. In fact, the relation of the hospital to the community is most complex. This is so well understood that the "Modern Hospital" has just announced a prize essay competition on this very subject. The medical school and the hospital must be regarded not only as educational institutions, but institutions of higher learning and consequently both should have a direct relationship to the university. The medical school has but recently rejoined the university family and the entrance of the hospital is only a question of time.

The opportunities of the hospital and school under university auspices are enormous, for not only is the matter of medical education in the narrow sense their joint function, but also nursing in all its phases, social service, public health, and preventive medicine. It is easy to visualize each hospital as the center, from which all such matters radiate in a given community, with the medical school but slightly removed, and both, as they should be, under university jurisdiction.

My own views may be colored somewhat, as I am particularly concerned with the educational aspect, and in looking at the matter from the point of view of the educational institution it can easily be seen that teaching and investigation in connection with cases in hospital is at present much less satisfacorily carried out than in the case of the more definite laboratory subjects in the school. The time has come when we must extend to the wards and out-patient departments more and more of the methods of investigation which are found in the laboratories. In the nature of things the clinical departments will always be somewhat behind the laboratory departments at any stage in their development, since many of the methods used in the clinics are apt to be developed in the laboratories, although, as frequently happens, the clinic may force the laboratory to solution of problems not previously contemplated.

Still another point which must be emphasized in this connection has been brought out very forcibly by Flexner[2] in his recent report on medical education, where he states that the clinical side of medical education is much less satisfactory than is the case of the medical sciences; and while one is inclined to question his statement as to the number of fully developed university clinics in America, one does feel that, after all, the small numbers given would not be increased materially on closer study.

Since it is the purpose of this paper to bring about a discussion of what should be the relationship existing between a medical school and a teaching hospital, it might be well to consider an ideal arrangement of the two institutions. This might serve to show points at which approximation would be possible and might lead to recommendations from this body for a more thorough study of the situation to decide upon what is practicable.

To begin with, the question of administration of the two institutions would be simplified by a classification. Ordway[3] states that in the larger school the hospital should be regarded as being in the medical school and in the case of the smaller schools the school should be regarded as in the hospital. This point of view is rendered necessary by the fact that in the larger schools the numbers of students and the size of the faculty mean affiliations with more than one teaching hospital. In the case of the smaller institutions with few students it may be that one fairly large hospital meets the needs.

As regards the plant, the smaller school is somewhat more interesting than the larger, inasmuch as it is possible to have the whole establishment practically under one roof, as is shown by the newer institutions at Colorado, Vanderbilt and Rochester. The offices of the dean and superintendent should be located as close together as circumstances will permit. There should be common class rooms, auditoriums and laboratories for the use of both institutions. The library should be located conveniently and its support should be a joint undertaking. These arrangements, together with the use of common power plant and certain other utilities, would contribute largely to the economical running of both institutions.

The boards of control should either be identical or should be interlocking to a very considerable degree. The budget of each institution should be sufficiently elastic to cover in either case matters which are of mutual advantage. The staff of the hospital as a whole should be a part of the teaching force of the school and those instructors more definitely connected with the school should participate in the activities of the hospital.

The students in the various departments should be classified and their instruction be a joint activity of the two institutions. This means that not only medical students, but also graduates, research workers, the social service group and nurses will all be taken into consideration. There are, of course, many other points where the facilities of the university should be made available for the service of the hospital, as well as that of the medical school. A very careful plan should be instituted to cover the responsibility throughout the whole period of contact.

Under our present arrangements the relations of the medical student to the hospital gradually increase from his entrance to his graduation. The more recent innovations which allow attendance by first year students upon certain hospital exercises introduces this factor somewhat earlier than has previously been the case. In any event the tendency would be to make the upper classmen more definitely a part of the hospital organization. In the case of research workers and graduates the field would naturally determine their location and the responsibility for the greater part of their supervision.

The social service workers and the nurses present a problem, we shall soon be called upon to solve and, if we are seriously concerned, no better way is opened than through the association with the university. Arrangements would have to be made to accommodate these groups in courses already under way, or, if need be, especially organized for the work in hand. Many of these courses would naturally be found in departments other than those of the medical school. Correspondingly, there might be groups in special departments of the university who would need to receive instruction either at the school or at the hospital.

What has been said of the smaller school may be applied in part to the larger institution or what Ordway[3] has termed, "medical university." In these cases there might be the organization of teaching units, each fairly complete in itself and located in the part of the plant best suited to their activities. For example, a Department of Anatomy under this arrangement would probably be located in the school plant, whereas the Department of Physiology might have its headquarters and main teaching plant in the medical school with subordinate stations in such of the other units as might seem advisable. This larger teaching group is, of course, a much more expensive one, but its continuance is absolutely necessary, if we are to have the well-rounded development of the more special departments of medical education.

I cannot leave the subject of arrangements in the hospital without speaking of the out-patient department. It is through this department that the hospital has its largest contact with the public it is supposed to serve. It presents unusual opportunities not only for the application of curative and palliative methods, but also for extremely important work in connection with preventive medicine. As an educational institution the hospital must arrange to conduct a certain amount of instruction for the general public through this agency. I am convinced that this is an opportunity which has been largely neglected.

In the foregoing discussion I have considered teaching hospitals which are so located as to permit an easy affiliation with the university, but there is another group which is entitled to equal consideration as teaching hospitals, which is not so fortunately placed. This group includes a number of rather large well organized hospitals in cities which are at present without medical schools, but which offer clinical material in abundance. Some way must be found to utilize these facilities and at the same time aid the hospital in the educational work which it is now attempting to do. It might be that these institutions could be handled as extension departments of universities located in another city, or it might be possible to adjust relations with other educational institutions more conveniently placed. I feel, however, that the profession in and about such centers are entitled to some consideration and either through the methods suggested, or through the auspices of the Medical Society, some form of teaching should be established to enable them to keep abreast with the times.

The problem here presented is, I believe, deserving of careful consideration and should lead to a considerable discussion. The Massachusetts

Medical Society has already indicated its interest in both sides of the question by having a Standing Committee on Medical Education and a Section on Hospital Administration. It is to be hoped that through some joint action a commission might be appointed to give the matter a thorough study.

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DISCUSSION: The Discussion was opened by Dr. Frederic A. Washburn, Director of the Massachusetts General Hospital. Dr. Washburn stressed the importance that teaching in a hospital has in the better care of the patients. He took issue with Dr. Begg's statement that teaching is of the most importance in the functions of a hospital. He felt that the care of patients is still the chief function. The effect on the minds of the public might be bad in laying too much emphasis on the teaching side of the hospital. This might be excused in a so called university hospital. Each hospital should maintain its identity. There should be a working arrangement between the school and the hospital. He brought out the fact that the medical school does not always understand the aims of the hospital.

Dr. Joseph B. Howland, Superintendent of the Peter Bent Brigham Hospital, brought out the fact that the entire control of a hospital by a university or medical school would often interfere with the charter and aims of the hospital. He brought out that there could and should be harmonious relations between the two, without the school assuming the leadership. He felt that the Out-Patient Departments of hospitals were not always run in the most efficient manner. He drew attention to the appointment system in out-patient departments.

THE ORGANIZATION OF A MENTAL HOSPITAL STAFF

BY WILLIAM A. BRYAN, M. D., WORCESTER
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In the numerous advances which have succeeded each other with such startling rapidity and have established land marks in the history of modern medicine, the hospital has played a leading role and its influence has extended far beyond its walls.

The tendency of the present day is toward prevention rather than therapeutic empiricism. The function of all hospitals, special and general, should be preventive as well as curative. The old narrow view point that the hospital should not concern itself with the disease until the disease had developed is rapidly giving way to the broadest policies and functions. A narrow gauge institution without this broad conception of functions cannot render the best service to the community, and cannot do its share with the increasingly successful battle against disease. Therefore, any discussion of the organization of the hospital Staff must take into consideration two fields of activity, extramural and intramural.

Dr. MacEachearan has defined hospital administration as "the expression in terms of service of the hospital policy as laid down by the governing body." This service in its broadest sense includes the carrying into effect these policies and functions which are designed to benefit the patient and direct the entire community. This definition fits the mental hospital as well as the general hospital. The purpose then of the entire hospital organization can be summed up in the one word Service; Service to the patient and Service to the community.

The problems of the mental hospital are so many and varied that it is only by efficient organization and a proper division of labor that any progress can be made in attaining the ideals set by the institution. These problems are similar in character to the problems of the general hospital up to a certain point, and the mental hospital can follow the lines of organization of the general hospital up to this point. Beyond that there are certain conditions peculiar to the class of patients being cared for, that make modifications and changes necessary.

In the brief time at my disposal I wish to outline what I believe should be the organization of a medical Staff in a mental hospital with a division of labor and responsibilities calculated to give the patient the greatest service.

As a prime requisite to the proper functioning of a medical Staff there must be good leadership. The personality of the individual at the head of the organization permeates the entire struction and the manner in which the Staff functions reflects very largely the attitude of the head towards the entire problem.

Organization does not mean putting down on paper certain standards and certain routine ways of carrying on these standards. An organization which only exists on paper does not function and cannot function without building up a proper personnel to carry it out. A system is no better than the individuals who are carrying it out. Hence the individual at the head of the organization, if he is to get efficient service from a medical Staff, must be one of initiative and vision. If he is broad minded, ready and willing to receive new ideas and suggestions, and is anxious to see the men under him develop, the organization will progress and render service. But if he dislikes innovation,

if he can see no good in new ideas because he did not originate them himself, the result will only be stagnation, and the patient eventually suffers.

The function then of the superintendent of the mental hospital in building up a Staff is to secure the strongest men available, outline a division of authority and responsibility, furnish the enthusiasm, and encourage a spirit of scientific activity, give the members of the Staff an opportunity to work out their own ideas and to furnish them facilities to do so, and permit them to grow and expand.

The next most important member of the hospital Staff is the assistant superintendent. He is the man who correlates and brings together the many medical activities of the hospital and keeps the machine working smoothly and harmoniously. The work requires a big, broad-gauged, tactful individual who can iron out the difficulties and smooth out the annoyances which continually come up among a large group of people who are constantly working together.

These offices are, then, the administrative offices of the hospital and are the engineers who keep the machine running smoothly.

In the treatment of mental patients, and I might add all patients suffering from any disease, three factors have to be considered before any diagnosis can be made or any plan of treatment instituted. These three fields of inquiry are physical, mental, and social. Each of these fields is sufficiently broad to be a specialty alone and the basis of the organization of a mental hospital Staff should be a sharp division of labor in the three fields. This is real specialization and I am convinced for the purpose of rendering the best service to the patient, it is necessary to narrow the interests of the physician to a field which he can cover thoroughly. It is unfair to expect any Staff member to be an efficient internist and a good psychologist, and not expect his interest in one field or the other to predominate. Hence in the organization I am speaking of there is a medical service, a psychiatric service, and an out-patient service. Each service is headed by a senior physician with a sufficient number of assistants, and he is responsible for his own part of the work.

In elaborating upon this idea I can present it more clearly by describing the organization of the medical Staff of the Worcester State Hospital, and the manner in which it functions. I wish to state that we claim no credit for originality but have merely taken the general hospital plan of organization, adapting it to our needs with such modifications as seem necessary.

The medical Staff consists of fourteen resident physicians. This includes the superintendent and assistant superintendent. The services are divided into a psychiatric service and a medical service, both male and female, and an out-patient service. Each of these services are in charge of a senior physician with two junior assistant physicians. The out-patient service includes the social service department. The laboratory which is in direct charge of a medical assistant is under direction of the medical service. As a part of the psychiatric service there is a psychological laboratory. This laboratory makes special tests in personality study on patients and assists in carrying out of the treatment of patients. The psychiatric service has supervision of all treatments that are not physical. This includes occupation therapy, industrial training, play-ground therapy, and similar activities. The medical service has the responsibility of carrying out of all the physical procedures. The dental department, pharmacy, X-Ray and electro-therapy rooms, operating room, and diet kitchen are at the command of this service and under its control. Recognizing that to give the patient the best service, we have been building up a visiting Staff, and I take this opportunity of acknowledging our indebtedness to the visiting Staff who have given so freely and generously of their time in helping us in the treatment of our patients. We now have a well organized medical service including orthopedics, eye, ear, nose and throat, and X-Ray and electro-therapeutics. The visiting man spends half a day a week at the hospital and examines such patients as are referred to him.

When a new patient is received into the hospital he is taken to the admission office, stripped and given a brief physical examination. The admitting officer is always a member of the psychiatric service and this preliminary examination is designed to protect the hospital. It takes in the particular gross abnormalities especially fractures, contagious diseases, and bruises of any kind. The patient is then sent to the admission ward, placed in bed in a room, and a set of charts started. Patient is assigned to a member of the psychiatric service whose turn it is and he is responsible for the patient's mental diagnosis. A complete medical diagnosis is carried out by the medical service and this service is responsible for all laboratory procedures and for the following up of any abnormalities discovered in the routine examination. A routine urinalysis, and blood Wassermann is carried out on every admission. The teeth of every patient are examined by the dentist and the findings of the physical examination may lead to further investigation along the line of laboratory tests. A positive Wassermann always indicates a spinal puncture. Cases showing physical findings are checked up by the visiting Staff. In a word every possible effort is being made by the service which has no responsibility other than looking after the physical condition of the patient in order to find any physical change which may account for the mental symptoms shown.

During this time the psychiatric service has

been carrying on mental examinations and studies of the patient from the purely mental point of view. Mental tests are carried out by the psychological laboratory and every effort is made to get at the seat and source of the mental symptoms shown by the patient from the view point of the psychiatrist.

In the study of every mental patient a careful consideration of the setting in which the psychosis developed is necessary. And during this time the out-patient department which is under supervision of the psychiatric department tries to secure a history. In the greater number of cases the history is secured in the hospital from relatives by a clinical clerk who is trained in history taking. In a certain number of cases it is necessary to send a social worker into the home to make a study of home conditions and surroundings under which the patient has lived.

When this data has all been secured and incorporated into the case record, the case is presented at a meeting of the entire Staff. These Staff meetings are held daily and new cases and patients to be discharged are considered. The member of the psychiatric service who has been responsible for the case presents the record in a summarized form and gives the mental diagnosis together with such outlined treatment as may be possible. A free and frank discussion is invited and the majority vote of the Staff decides the diagnosis. Many cases are referred back to the medical service for further study or to carry out some indicated line of treatment. The case may be referred to the out-patient department for further history and investigation or back to the psychological department for special study. The particular point I wish to emphasize is that the work is subdivided and that no member of the Staff has to divide his interests in several fields.

The out-patient service in addition to work as outlined has the responsibility of carrying on the out-patient clinics. Mental medicine is rapidly following in line with the idea of prevention and is making a determined effort to adjust patients who have shown mental symptoms before these symptoms develop to such a point as it is necessary for the patient to come to a hospital. This work is constantly increasing. It includes, also, certain educational work in the community, bringing the hospital to the community, and teaching the people just what our ideals are and what we are doing towards carrying them out.

To summarize briefly I believe that the most efficient plan of organization of the Staff of a mental hospital is to divide the work into mental, physical, and social fields, each service having its own direct responsibility in the study of the patient, and the combined efforts of all of them being utilized to make a diagnosis and outline a treatment.

The treatment of mental disease is not exclusively the function of the psychiatrist or of any one particular individual. It requires the combined efforts of the men in all branches of medicine, sociology, biology, and psychology. There has always been much controversy as to whether the symptoms had an underlined physical cause or whether they were purely psychogenic in origin and all investigators have worked along one line or the other. I have arrived at the conclusion that they are all right.

There are almost as many causes for these mental states as there are people suffering from them. Some of them are physical, some of them are psychogenical, and some of them are environmental; and to decide which is which in an individual case will require the efforts of everyone who can throw any light upon the problem.

The problem of mental disease is one of the most important problems confronting the medical profession today. When you consider that in the State of Massachusetts one out of every twenty-five persons spends some portion of his life in a hospital for mental disease, when you realize that 20% of every dollar appropriated by the State of Massachusetts goes to the maintenance and up-keep of the hospitals for mental disease, when you consider that the State is caring for twenyt thousand mentally inefficient people, you will probably be willing to agree that the magnitude of the problem is a great one and is not to be solved by any one group of workers bringing only one narrow view point to bear upon the situation. It will require the organized efforts of every type of worker interested in the welfare of the human race working, perhaps, under the direction of the psychiatrist to throw any light upon the method of preventing this enormous waste of human material. And, I feel very definitely that before any proper organization of a State Hospital Staff can be worked out, this fundamental fact must be realized.

Discussion: Dr. Fennelly, of Fall River, brought out the importance of promoting good relations between committing officers and state institutions. He felt that the sending of adequate reports by hospitals to admitting physicians was of great importance in promoting these relations.

Dr. Victor Safford, of Boston, asked to what extent the state hospitals were going in following up discharged patients. Dr. Bryan felt that it was absolutely impossible at the present time to follow every discharged patient, but felt that they should be followed up by the Social Service Department, if the social service department were large enough, and a visit made at least each month.

THE RESPONSIBILITY OF THE HOSPITAL IN THE TEACHING OF SURGERY

J. EMMONS BRIGGS, M. D., BOSTON

The last edition of the Century Dictionary defines a hospital as an establishment or institution for the care of the sick or wounded, or for such as require medical or surgical treatment. The modern definition as published by the Council on Medical Education is more comprehensive:—

"A hospital is an institution suitably located, constructed, organized, managed and personneled, to supply, scientifically, economically, efficiently and unhindered, all or any recognized part of the complex requirements for the prevention, diagnosis and treatment of physical, mental and the medical aspect of social ills; with functioning facilities for training new workers in the many special professional, technical and economic fields essential to the discharge of its proper functions; and with adequate contacts with physicians, other hospitals, medical schools and all accredited health agencies engaged in the better health program."

Thus, it will be seen that the function of a general hospital has become so comprehensive and its sphere of usefulness so widened that it must fulfil certain definite requirements in order to receive the approval of the Council of Medical Education, the approbation of the College of Surgeons and to receive a Class A rating. Time forbids an extensive review of these prescribed requirements. Three, however, stand out prominently:

It must render an acceptable service to the sick, a service in education and research and a service in prevention of disease. We assume that the hospital is constructed, incorporated, presided over by a board of trustees, a superintendent, with necessary salaried officials and employees, a staff ample to man the various departments. All the laboratory facilities are in charge of full time salaried physicians, a Roentgenologist and his assistants, a training school for nurses, an Out Patient Department and a social service; record clerks and a follow-up department, with endowment sufficient to carry on its many activities without undue financial strain;—and we have a picture of the modern general hospital, as found in our large cities throughout the United States. Such hospitals are adequately equipped; yet, if they exist solely for the purpose of caring for the sick, they signally fail in fulfilling the essential requirements of modern medicine; for unless hospitals are intimately associated with medical colleges and present facilities for clinical teaching, they fail to attain their full sphere of usefulness.

Medical school affiliation, therefore, becomes a prime requisite and the closer the affiliation, the better for the medical school and for the hospital.

By affiliation, joint ownership is not implied. The medical school and the hospital may, and I believe, should be separate corporations. In this arrangement, the greatest good will accrue to both institutions. But first and foremost, the Board of Trustees of the hospital must be men of large vision; able to comprehend the present and the future of medicine, and should be alive to the tremendous responsibilities which they assume; not only as custodians of the physical properties of the hospital, its service to the sick, but to the whole progress of medical education as it applies to the clinical teaching of medical students, house officers, internes and nurses.

The trustees of such institutions should encourage clinical teaching by appointing upon the staff, such men as may hold teaching positions in the affiliated medical school, placing professors and instructors as chiefs of services and assistants, in corresponding hospital departments.

Trustees having welfare of the hospital in their charge should be mindful of the great educational opportunities which the modern hospital affords and should encourage clinical teaching and medical research, thereby enhancing the reputation and prestige of the institution.

For the future of medicine and the perpetuation and advancement of hospitals over which they preside, are soon to be in the hands of those being educated today. While we bear the burdens today, they carry on when we step out.

Upon the trustees, therefore, falls this double responsibility of service to the sick, and the improvement of the hospital's educational facilities.

Unfortunately, most of our hospitals were created prior to the advent of modern sectional teaching. Large surgical amphitheatres should give place to smaller operating rooms; large wards should be equipped with small laboratories and examining rooms, in which a group of students and instructor may meet. Ward beds with approved rubber tread casters, with the patient thereon, can be conveyed to this room, where physical examination and demonstrations can be made, after which the patient may be removed and clinical conference continued. Such accommodations afford privacy for the patient, do away with the confusion caused by groups of students in a ward and greatly facilitate teaching.

The original conception of a hospital as an institution primarily for the care of the sick is as true today as formerly. The patient's welfare should be our first consideration and nothing should be allowed to detract from this essential requirement. We may with propriety consider what influence medical teaching exerts upon the welfare of the patient. Manifestly,

the influence may be beneficial or harmful depending upon the manner in which such teaching is conducted.

Surgical teaching in our hospital consists in clinical clerking, ward walks, laboratory work, witnessing operations and after-care of patients. Of no less importance is the training which the student receives in his contact with the sick and the development of a dignified, professional and scientific bearing toward the patient.

It is important that this valuable experience to the student be obtained without disturbing the patient. Patients appreciate thorough investigation, physical examination, detailed history taking, but they naturally resent being exploited as clinical material for teaching purposes. They are more interested in obtaining relief from physical suffering than in the abstruse problems of medical education.

Therefore, the hospital's authorities must impress upon the students, the patient's point of view and formulate such rules and regulations governing clinical clerkships and ward walks as shall protect the hospital and the patients therein.

In a hospital affiliated with a medical school, it should be made plain to the student that all privileges will be withdrawn should his conduct be objectionable; that the curtailment of such privileges will debar him from receiving that clinical instruction which is required in order to obtain a degree from the affiliated medical school. His proper deportment is therefore a requisite for graduation.

Furthermore, clinical clerkships and the ward walks, laboratory work and attendance upon all exercises must be carefully supervised by the instructors and the student rated upon the character of work accomplished.

From the foregoing remarks, it might appear that the student in medicine was receiving the major proportion of the benefits to be derived by a medical school affiliation, but such is not the case. The hospital is profiting and the patients are receiving more careful and painstaking investigation, which precludes such errors as arise from lack of pre-operative study.

The staff is stimulated by the continuous and unremitting struggle for knowledge requisite for teaching. A failure to utilize in the individual case all our resources in diagnosis and treatment is a reflection upon our ability as educaors, quickly seized upon by an intelligent and alert student body Teaching keeps the physician up to date; it inspires confidenee in patients and in pupils and brings up the morale and reputation of the hospital.

The responsibility for the quality and type of surgical teaching rests jointly with the hospital and with the medical school. The medical school supplies lecture courses and laboratory instruction, but the hospital is the only place where practical clinical training can be obtained. This teaching must be sound, scientific and progressive.

The hospital provides opportunities for clinical instruction of two distinct types; house cases requiring confinement in bed and ambulatory cases, treated in the Out Patient Department. For teaching purposes, both types are valuable and both are essential.

Clinical surgery is taught in our Out Patient Department during the junior year, in small sections.

The Out Patient Department supplies teaching material of the greatest practical importance to the undergraduate, preparing him for the minor emergencies encountered in general practice; but these ambulatory cases do not afford an opportunity for elaborate and painstaking study and research.

In the senior year, there are no lectures and the entire year is devoted to clinical instruction. The class is divided into three sections; medicine, surgery and the specialties. The students in surgery are subdivided into three sections and distributed among the three general surgical services, operating simultaneously. Thus, our sections are small, averaging about five students and each student, during the ten weeks of his surgical assignment, spends three to four weeks under the tutelage of the head of each service and his assistants.

The student here encounters all the severe surgical lesions which require careful preliminary study, operation and prolonged after-care. They are essential as representing major surgical conditions, in abdominal, general and special surgery. They give opportunities for history taking, diagnosis, laboratory work and a chance to demonstrate grave and hazardous surgical procedures. Physical examinations are conducted under supervision with comment and criticism in corroboration or refutation of the student's determinations, with instruction in the practical application of laboratory tests as an aid to diagnosis and the proper estimation of their significance.

The establishment of the pre-operative diagnosis entails careful differentiation from other surgical conditions presenting similar symptoms and physical aspects. Much emphasis should be laid upon differential diagnosis. The student is taught how to arrange history, physical examination, all laboratory and X-Ray reports into a homogeneous entity, which represents the correct diagnosis with the minimal element of doubt. This diagnosis, when worked out upon scientific principles, is recorded by the student as his pre-operative diagnosis and defended in debate with classmates and instructor. Physical examinations and laboratory determinations lead to discussion of anaesthesia and its methods, whether local or general.

The proposed operation should be discussed. The student outlines what he would do; where

his incision would be made, and how, as the operation progresses, he would manage such pathology as he is expecting to find, the complications which might be encountered, with methods of meeting such emergencies. The various steps of the operation are described by the students and wound closure, drainage and dressings are discussed and demonstrated.

One member of the section may give the anaesthetic and the remainder of the section become onlookers. The student to whom this patient has been assigned, who has personally worked up the case, is given first consideration in the demonstration of operation. He records the technical steps in the operation, the description of the pathology encountered; and will have the post-operative records to maintain.

Subsequent post-operative conditions and complications are discussed as they appear. Wounds are dressed and a report of progress is noted by the student who has the assignment. The student records the condition of the patient at time of discharge. Should a fatality result, autopsies are strongly urged and these post-mortem examinations are done by the pathological department of the hospital and attended by the students and the staff of the surgical service on which the death occurred.

All deaths and patients discharged not benefited are tabulated in the general monthly summary of the hospital's work and are reported at length at the next full staff meeting.

This monthly statement incorporates such essential data as the number of consultations, clean cases in which suppuration occurred, of pre-operative diagnoses which were substantiated or refuted by operation or by autopsy.

Not only has the hospital a service to perform for the under-graduate, but a service of greater practical importance to its own future welfare in providing clinical opportunities for its internes and house officers.

The hospital provides for them an additional one or two years in post-graduate clinical instruction and research. From these residents, the staff is largely augmented. The young man making good as a resident is in line for promotion in the Out Patient Department and, if satisfactory in this capacity, is appointed upon the general staff.

It therefore becomes essential to educate our medical students, internes, residents and surgical assistants in all the principles of the art and science of surgery, essentials of asepsis and surgical technic, the truly scientific atmosphere in which all investigations are conducted, the building up of the diagnosis upon scientific lines, the elimination of guesswork and avoidable error, the employment of recent discoveries, accentuation of what has been demonstrated as sane and reliable; the practical application of theoretical instruction and knowledge; the formation of professional character and honesty, and a conservative yet open and progressive mind.

DISCUSSION: Dr. Victor Safford, of Boston, stressed the importance of instructing students and internes in the proper attitude towards patients. He felt that this was of extreme importance.

President's Address at the Annual Meeting of the Massachusetts Tuberculosis League, Inc.

BY EDWARD O. OTIS, M. D.

TUBERCULOSIS no longer holds the first place in the mortality list in this country. Cardiac disease and pneumonia have already passed it, and cancer is a close rival. The diminution in the mortality from this disease in the last twenty-five years, both in the country at large and in this state, is little short of phenomenal. In 1910 the mortality in this state was 179.8 per 100,000 for all forms of tuberculosis, while in 1923 it was 89.8 or a reduction of 50% in fourteen years, which means a saving of 2,467 lives annually, truly a remarkable result. In an exhaustive study made by Dr. Louis I. Dublin of the Metropolitan Life Insurance Company and Miss Jessamine Whitney of the National Tuberculosis Association and published in the *American Review of Tuberculosis*, it was estimated that tuberculosis cuts approximately two and a half years from the complete life expectancy of every individual, and, under present mortality conditions, the loss per person in national wealth is at least $250. Thus in the saving of 2,467 lives this would mean an annual saving of $616,750 to the state.

From now on it is hardly to be expected that the decrease will go on in the same rapid manner, but it would seem as if we were justified in looking forward to a not distant future when we should arrive at the minimal limit, whatever that may be, when tuberculosis will be classed with typhoid fever as to its comparative infrequency. That we shall ever entirely eliminate tuberculosis I do not believe, and in our present civilization it would prove a doubtful blessing, I fear, for although the tubercle bacillus when it falls on fruitful soil produces disease and death, when it is entertained by a resistant host it produces only an immunizing infection which in the majority of cases protects throughout life. Hence the incentive to maintain our resistance and thus our immunity.

What has caused this rapid and striking de-

cline in the disease? We cannot attribute it predominantly to any one factor but to all factors working together: General health education, the realization of the importance of personal and industrial hygiene, earlier and more accurate diagnosis, preventive medicine, increased attention to the health of children, better living and working conditions, higher wages and shorter hours of work, prohibition, more efficient and intelligent official health alministration and all the direct means to limit the spread of tuberculous infection so well known to us. If I were to select the three most important factors, I should say (1) General health education including specific instruction regarding the simple facts of tuberculosis; (2) Early and better diagnosis (3) The present efficient public health service, notably in this state.

It goes without saying that we must still continue all our well known instrumentalities in the struggle against tuberculosis which, we must remember, yet exacts a heavy toll, but we have arrived at that stage when our efforts have broadened and we are now including in our program more general health work, notable illustrations of which are the Children's Health Crusade, the ten year child health program presented by the State Department of Health, and the increasing interest in preventoria for suspected and undernourished children. "The greatest weapons" (in combating tuberculosis) said Dr. Zinsser in a recent address, "are public coöperation, public education, in connection with a strenuous and extensive effort made by local, state, and federal authorities."

I wish to refer to one or two phases of our work during the year. First, I want to call your attention to the report of Mr. Hopkins of the National Tuberculosis Association, who was kindly loaned to us by that organization. Mr. Hopkins made a thorough study of our office system and methods of work and also of field activities. Through his suggestions, certain changes in office procedure have been made which will increase our efficiency. Mr. Hopkins in his extended report reviews the entire work and procedure of the League and offers many valuable constructive criticisms. In regard to the legitimate place of the State League in the general scheme of tuberculosis work of the state, he makes the following statement of what seems to him to be a fundamental condition: "The State League," he says, "'is expected to act as a service agency for its affiliated associations and all local tuberculosis associations. It is also expected to carry on that part of the tuberculosis campaign in Massachusetts which is not being handled by the official agencies and which cannot be handled by the local associations." "Doubtless," he continues, "there are many differences of opinion as to the amount of work that should be carried by the State League and, therefore, the amount of expenditures that are justified, but it would seem that a certain minimum expenditure is necessary if the work throughout the state is to be properly stimulated and the necessary assistance is to be rendered in carrying on a Seal Sale which will always provide sufficient revenue for local work." No organization can please all its members, do what it will. There will always be dissatisfaction among some of them, but if you believe that your League is conscientiously striving to do its work in the prevention and control of tuberculosis in the state, I am sure it will have your loyal support and your helpful suggestions.

It is a trite, but none the less true, saying, that organization greatly increases the effectiveness of any undertaking whether in politics or philanthropy, and one of the serious efforts of the League has been to promote such organizations in our tuberculosis work throughout the state. The county or district would seem to be the natural unit as it is for the county sanatoria. It is quite natural that the strong local associations should feel sufficient in themselves and be reluctant to share their good fortune with other less prosperous associations, but in doing this I am quite sure they will find it "blesses him that gives and him that takes." There are many problems in our tuberculosis work which affect the whole county, and, when such an organization exists, they can be more intelligently discussed and solved for the benefit of the whole. There are small, local communities which have not the means or the inspiration to successfully solve their own tuberculosis or health problems or, indeed, may not realize that they have any, and a county association with the aid of its strong members can stimulate and aid these weak brothers and thus render the tuberculosis work for all more effective. There are also projects which more naturally belong to the county rather than to local associations, such, for example, as preventoria and summer day camps for delicate children.

As the county association embraces its local units, so the League embraces the whole state, as the National Association does the whole country. The League is the liaison between the local associations and the National. Obviously, the League can do some things for tuberculosis work in the state at large, because it represents the whole state, which local or county associations cannot do or do so well. For example, in the recent highly important hearings before the Legislature regarding new tuberculosis measures, the League through its Legislativve Committee made a careful study of proposed legislation and presented its views through one or more of its officials at the hearings. As Dr. Kelley, our State Health Commissioner, has declared, "The Legislative Committee of the League has been particularly helpful." He said he welcomed the study of health legislation by this Committee which was not connected with his Department and was, therefore, in a position to render impartial judgment in considering bills.

It is a cause of congratulation that our legislators look to the League for advice in pending tuberculosis and health legislation. We have established our position as a voluntary association, unhampered by any official connection and seeking only the best interests of the community in their tuberculosis problems, and we have studied these problems with the sole view of their best and wisest solution.

And so in many other ways the League can act for and be of service to its affiliated associations. Each organization—the local, the county, and the state—has its appointed work, the end being the same, the control of tuberculosis, and by harmoniously working together the greatest good of all can be attained.

No state, I believe, is better equipped at the present time for handling the tuberculosis problem than is Massachusetts. The Health Department, through its Division of Tuberculosis, is highly developed, intelligently directed, and thoroughly informed as to the tuberculosis problem in the state, and wisely working it out. We have a sympathetic public which through its legislators is ready to enact any reasonable measures for the prevention and control of tuberculosis. We have sufficient beds in our state and county sanatoria for all tuberculous cases needing treatment. Clinics by experts are held in various parts of the state. Volunteer work is becoming well organized and effective through the League and its component parts. We are developing preventoria and day camps for suspects among children. For the most part, we have competent medical school inspection.

The Children's Health Crusade is rapidly spreading throughout the state. We have our tuberculosis nurses, and tuberculosis education both in the schools and among the public is widely disseminated. Of great value is the educative feature of the Seal Sale. No one in Massachusetts today need remain ignorant of the simple facts of tuberculosis, or cannot receive an expert examination, or, if active disease is discovered, cannot obtain entrance into a sanatorium.

We have our tuberculosis work in this state well defined, and what we now have to do is to carry it on more intensively and to perfect the existing machinery.

There are still defects which need correction and readjustments to be made. The local tuberculosis hospitals in some of our cities, I fear, are not up to the standard of the modern equipment or treatment, and it would appear desirable, as has been proposed, that these should in some instances, at least, be abandoned and the better equipped and better served county sanatoria become the sole tuberculosis institution of the district. It is doubtful if the state-ordered tuberculosis dispensaries have in all instances gained the confidence of their communities. Either these should be reorganized or abandoned and dependence placed upon the state expert service by the sanatoria personnel.

It is hoped that our present Legislature will adopt the recommendation of the State Department of Health, which has been seconded by the legislative Committee on State Administration of our sanatoria, that Lakeville Sanatorium be designated for the treatment of non-pulmonary tuberculosis. When we consider the remarkable results obtained at the Perrysburg Sanatorium by means of heliotherapy—the sun's rays—particularly with children suffering from bone and joint tuberculosis, we may look forward to similar results at Lakeville, for the sun shines in Massachusetts, so far as I know, about as much as it does in New York.

Another phase of our work which up to the present time has, so far as I know, received but limited attention is the placement of arrested tuberculous cases after they return from the sanatoria in such occupations as are suitable for their condition. The Boston Association is already actively engaged in doing this, and for this purpose employs a highly trained social worker who interviews employers and returned arrests or quiescent cases able to do part-time work, with the object of persuading the former to employ the latter under such conditions as will not prejudice the regained health. Experience has demonstrated that employing concerns are responsive to this appeal when the facts are properly presented to them. Obviously, this is a real and extremely important piece of tuberculosis work. Too many cases relapse, as we know, if they return to the same old conditions of living and working, and then the labor, time, and expense of the treatment goes for naught, to say nothing of another source of exposure to others through the awakened disease.

There is another subject to which I wish to call your attention for a moment, one which I daresay may not have occurred to you, and that is the difficulty of obtaining physicians with some special knowledge of tuberculosis for our sanatoria. The one most important part of any sanatorium equipment is the quality of its medical personnel. Again and again the appeal has been made to me to obtain physicians for sanatoria both private and state, not only in this state but in others as well. This is a serious condition and it is difficult to find the remedy. To most young physicians tuberculosis work does not seem to appeal, and in their estimation the future in such practice does not offer the inducements that other branches of medical work do. Moreover, the remuneration is not alluring. Still another reason, and I believe a very influential one, is the lack of enthusiasm and of the research spirit in the personnel of some of our sanatoria. What such an atmosphere of study and research can do to stimulate interest in tuberculosis is shown by what the Connecticut State Sanatoria have done. In their monthly

conferences some thirty odd papers upon some piece of investigation have been presented in the last few years. I believe that in some such way sanatorium service could be made so attractive that internes could be readily obtained as in the general hospitals, and thus a body of young physicians could be sent out with special training in the diagnosis and treatment of tuberculosis. The sanatorium is a great reservoir of most valuable clinical material, which ought to be utilized both for instruction and study far more than it is, both for medical students, young graduates, and physicians.

The medical resources of the sanatorium should be made more available to the general practitioner by means of conferences, clinics, lectures, and the exposition of some piece of research work. The state and county, or perhaps the League, could, in my opinion, make no more justifiable expenditure than to enable the sanatorium to open its doors to the general practitioners of the state for such a purpose. In its budget for this year the Boston Tuberculosis Association has appropriated $400 for an institute for the general practitioner similar to ones held two or three years ago under its auspices.

We say that it is the general practitioner who first sees the consumptive or the suspect, and the more accurate and the earlier his diagnosis is made, the sooner the patient will receive timely and correct treatment and the sooner the arrest of the disease will be accomplished, although, unfortunately, so many consumptives do not consult any physician until the disease is at least moderately advanced. Early diagnosis and early treatment will obviously rebound to the interest of the state economically on account of the shorter time of treatment. We must not be content with elaborate and expensive sanatoria *buildings* alone. We must have experienced and enthusiastic physicians to man them. A rude shack for a building and a Bowditch for attending physician will give better results than an elaborate sanatorium building and an inexperienced or incompetent physician at its head.

In conclusion: We have accomplished much, very much in the prevention and management of tuberculosis, and we may well congratulate ourselves for our part in this beneficent work. Much, however, remains to be done. Let our past accomplishments only encourage and stimulate us for more vigorous future work. In the words of President Eliot uttered on the anniversary of his 90th birthday—"Look forward and not backward."

Tuberculosis in Children

BY HENRY D. CHADWICK, M. D.

Supt. Westfield State Sanatorium, Westfield, Mass.

[Read before Institute for Nurses of Boston Tuberculosis Association, in Boston, April 9, 1924.]

In considering children, growth is our best yard stick to measure with to get an idea of their health and whether or not they are keeping up with the average of the normal child. It is by comparing weights and measures from time to time that we can get an idea of how they are growing, and if they are not growing in a normal way, we can try to find out the cause. There are many causes.

A great deal of work has been done in weighing and measuring school children and we find that 8% of the underweight children have evidence of tuberculosis. That is one of the causes of their being under weight. That is the group that I am particularly interested in. To get hold of these children, we must weigh and measure them in order to find those who are the most in need of care. If a school child is 10% underweight at a given age, it has lost about one year of normal growth. We know that parents are very much worried when a child does not make a grade in school, but if he has not made a grade in growth, they do not feel disturbed although it is more important than to have failed of promotion. Statistics show that about 16% have to repeat a grade. This retardation costs school departments millions of dollars. Many of these children are retarded because of disease. We hope to decrease that number by improving the health of the children. I am very sure that this can be done even with the limited experience we have had. If we could have a small portion of the money that is now spent on retarded children and put it into a health programme, we would soon accomplish great things; not only in an educational way but in public health.

In considering tuberculosis, we must realize that infection is universal. In Saskatchewan, the most sparesely settled province in Canada, a survey showed that at six years of age, four out of ten children reacted to the tuberculin test, and eight out of ten at eighteen years of age reacted to the test.

It is rather difficult to understand how all these children were infected. In the cities, practically everyone is infected because they are exposed to tuberculosis, while in the country there is so much less opportunity for infection that it is hard to understand such figures.

Some work was done in New Haven recently which shows the opportunity for bovine infection. Samples of milk were taken from the tanks of the distributors and 44% of these showed tubercle bacilli, which is evidence that there may be danger of infection from drinking raw milk.

Pasteurization is rapidly gaining in favor and when this practise is universal, children will no longer become infected with bovine tuberculosis. Scrofulous glands, tuberculosis meningitis and peritonitis are often due to infection taken into the body by drinking raw milk from tuberculous cows. We must try to prevent children from being exposed to open cases of tuberculosis and also to obtain a safe milk supply.

The children we select for examination are those who have been exposed to a human case of tuberculosis as they are much more apt to develop that disease. They are not only infected but have taken the infection into their bodies in large doses. They have not only had frequent and large doses to such an extent that their powers of resistance are overcome and disease results. Then we wish to take other children who are not well. Ask the parents if the child is sick and they will say no. But ask them if the child is well and strong and they will also answer no. They will then say that the child is always tired, but the child is really ill and they do not know it. If a child is out of school frequently, an examination is needed.

SYMPTOMS OF TUBERCULOSIS AS WE FIND THEM IN CHILDREN

Fatigue. The first symptom to consider is fatigue. If a child tires easily it is quite apt to have tuberculosis and for that reason is not up to normal strength. When playing with other children, he soon tires and drops out of the game. Cough is not as significant a symptom as fatigue. There are many causes for cough, among them enlarged tonsils and adenoids, and sinus disease of the nose. A child that coughs and raises a good deal needs examination, but the cough is oftentimes caused by something other than tuberculosis. A cough may be due to pressure of enlarged bronchial glands, but this does not last very long. It is surprising to me that in the history of most of the patients who come to the Sanatorium, cough is given as a prominent symptom, but with the children in the Sanatorium, cough is infrequent. The rest treatment causes it to disappear.

Fever. From the nursing standpoint, you should understand what fever means in a child. When I came out of Medical School, a temperature of 99.4 meant a fever, whereas it is normal for a child. When taking temperatures of children in the schools, I found a great variation. I believe normal temperature in a child is anything under 99.6. Many nurses make the mistake of thinking that a child who has a temperature of 99 in the afternoon has fever. It is not so, because children who have been at the Sanatorium for months will often have a temperature of 99.4. I consider that to be within normal limits, but if you find the temperature over 99.6 or 100, it does mean fever, and the higher the temperature, the more apt it is to be some acute disease instead of tuberculosis. Uncomplicated tuberculosis does not produce high fever. Whenever you get a temperature of 101 or 102, the first thing to do is to find out what other disease is present. When we send children away from the Sanatorium and the nurse visits the home and finds the temperature 99.4, she thinks we have made a mistake and sometimes sends the child back to the Sanatorium. Do not send a child back because of this temperature. I frequently find that children under 12 have pleurisy with effusion. It seems to be a common complication. They are going on apparently well when suddenly they have a high temperature and we find an effusion in the pleural cavity. From my own experience, pleurisy with effusion means tuberculosis in nearly every instance either in adults or children.

Treatment. The routine at the Sanatorium is this: The children go to school for a two and a half hour's session then they rest a half hour before dinner—it is important for underweight children to rest before dinner because they will eat so much more. After dinner, they have a rest period of two to two and a half hours and the group which did not go to school in the forenoon attends in the afternoon. The children under 12 years are in bed at 7 P. M., and the older children at 8 P. M., except with daylight-saving time when the hour is 9.

It is not always underweight children who have tuberculosis. In the group of from 12 to 15 years of age, we may find overweight girls who have the adult type of pulmonary tuberculosis. A girl from 14 to 16 years of age who has a positive sputum is almost always a fatal case. She may live for several years in a Sanatorium, then suddenly may begin to lose weight, and the disease progresses rapidly until death occurs.

The question finally comes up as to when the child should be discharged from the Sanatorium. I consider that a child is ready for discharge when free from symptoms, and up to average weight. Sometimes we keep a child a year or two and then when we send him home in good condition but needing supervision, we are told that we discharged him too soon. It seems to me better when possible to take care of two children during one year than to keep one child a full year. I consider it my part to get them into good condition and the nurses and local authorities should keep up the necessary care after they get home.

Metabolism Observations in a Case of Urticaria Scripta

BY ALLAN W. ROWE AND FRANCIS H. McCRUDDEN

[From the Evans Memorial Laboratory]

It is recognized that such conditions as myxedema, Graves' disease, Addison's disease, and diabetes are the result of marked and definite endocrine imbalance. And attempts have been made to characterize many less well defined conditions as due to less marked endocrine imbalance. But the evidence in many of these other conditions has so frequently been the alleged cure of the condition by the administration of some endocrine preparation that attempts to characterize a syndrome as due to endocrine imbalance have fallen somewhat into disrepute.

The following contribution to our knowledge of the pathology of urticaria scripta seems worth publishing because it illustrates how fairly complete laboratory examinations can supplement the clinical findings pointing to moderate endocrine imbalance.

A married woman of 36 years presented herself for examination and treatment with but one complaint: As soon as she undresses at night, itching white lines on a red background appear on the skin of her arms, back, shoulders, legs, and waist—at places especially where her clothing has been pressing or rubbing; these remain for a quarter of an hour and then disappear. This condition has been present off and on for about two years and is present sometimes in the daytime as well as at night. She says that she does not perspire even after exercise or in the hottest weather; and she cannot recall that she ever did perspire. Aside from this skin condition she considers herself very well. She does not suffer from headache or other pain, or from nausea, vomiting, dizzy spells, fainting attacks, shortness of breath, palpitation, joint trouble or digestive trouble; and she is not subject to sore throat. For years her weight has been nearly constant at about the present figure of 140 lbs. For a couple of years, until lately, boils have occasionally appeared on various parts of the body; they do not come to a head but show pus when opened.

Many cutaneous sensitization tests have been made and found negative.

Fifteen or twenty years ago she had a slight attack of some sort of eczema. Eleven years ago she had mumps. The following year she had an enlarged gland removed from her neck. Later on enlarged cervical glands again appeared and were removed. At the same time her tonsils were removed—although she had not been subject to tonsillitis—in the belief that they might be responsibile for the cervical adenitis. The following year another enlarged cervical gland was removed.

The patient was a well developed, well nourished woman of good color. Her skin was rather rough and dry but her hair was of normal texture. Her pupils reacted to light and distance; there was no exophthalmos and no nystagmus. Just under the jaw, on the left side of the neck was a small (operation) scar. One slightly enlarged gland could be felt under the point of the chin. The thyroid gland was not enlarged. Her knee jerks were of about average activity. Her fingers when extended showed no tremors. No tonsillar tissue could be seen. Her teeth were in good condition. Her tongue was not coated. Her mucous membranes were of normal color.

The lungs showed good expansion, unimpaired resonance, normal vesicular breath sounds and normal voice sounds. No râles could be heard.

No point could be located at which the impulse of the apex of the heart was maximal. The left border of the heart was 7 cm. to the left of the mid line—that is inside the midclavicular line. There was no enlargement upward or to the right. The pulmonic and aortic sounds were of about equal intensity; there was no reduplication. No murmur could be heard. The systolic blood pressure was 128 at first, but later fell as low as 110; the diastolic pressure was 90.

The abdomen was soft and tender and no abnormal masses could be felt. The joints showed no changes.

The presence of dermographism as described by the patient was verified as she removed the clothing from her arms and back. When her skin was slightly scratched with the finger nail, red lines followed by marked wheals soon appeared and remained about fifteen minutes.

Her temperature was 96, her pulse 56.

Blood examination showed 85 per cent hemaglobin; 4,220,000 red blood cells; and 8,900 leucocytes per cubic millimeter. Of the latter 72 per cent were polymorphonuclear neutrophiles, 23 per cent lymphocytes, and 3 per cent large mononuclear cells.

The following are the figures on the basal metabolism test. Height 162 centimeters; weight 61.9 kilos; area of body surface 1.66 square meters; pulse (average) 56; temperature 96; respiration 14. Basal metabolism (average of two determinations) 1202 calories. The normal for her, calculated according to Harris-Benedict, would be 1378 calories; according to Du Bois, 1454 calories. The mean of these two would be 1416 calories. Her basal metabolism, according to the Harris-Benedict calculation, is minus 13 per cent; according to the Du Bois calculation minus 17 per cent. The mean of these is minus 15 per cent.

The vital capacity test showed the following figures. Height 162 centimeters, trunk 85 centimeters, circumference of chest 73 centimeters, weight 61.9 kilos, area of body surface 1.66 square meters. Her chest capacity is 2720 centimeters. From the Dreyer figures the normal weight for her height would be 56.3 kilos, from her chest measurement 53.8 kilos—an average of 55.1 kilos. Her weight was, therefore, 12 per cent above the standard average. The normal chest measurement for her height is 73.9 centimeters; her chest measurement was 0.9 centimeters below the average standard—minus 1 per cent. According to Dreyer the normal chest capacity calculated for her weight is 3240 cubic centimeters; for her height 3020 cubic centimeters; for her chest measurement 2930 cubic centimeters—an average of 2070 cubic centimeters. According to West the vital capacity for her height is 3240 cubic centimeters; for her surface area 3320 cubic centimeters—an average of 3280 cubic centimeters. Her chest capacity of 2720 cubic centimeters was 350 cubic centimeters below the Dreyer standard—minus 11 per cent, and 560 cubic centimeters below the West standard—minus 17 per cent.

Examination of a 24 hour quantity of urine showed:

Volume	900 cubic centimeters
Specific gravity	1.020
Urea	18 grams
Albumin	Very slight trace

Microscopic examination showed only one hyalin cast.

The partition of the nitrogenous constituents showed the following figures

Total nitrogen	8.93 grams	
Urea nitrogen	7.53 grams	84.3 per cent
Uric acid nitrogen	0.11 grams	1.2 per cent
Ammonia nitrogen	0.40 grams	4.5 per cent
Creatinine nitrogen	0.30 grams	3.4 per cent
Undetermined nitrogen	0.59 grams	6.6 per cent

A kidney function test with phenolsulphonphthalein showed 22 per cent elimination the first hour and 18 per cent the second hour—a total of 40 per cent in two hours.

Chemical analysis of the blood showed 105 milligrams glucose, 30 milligrams non-protein nitrogen, 7.5 milligrams urea nitrogen, and 2.8 milligrams uric acid in 100 cubic centimeters of blood.

Examination of the alveolar air showed 3.1 per cent carbon dioxide—a tension of 22 millimeters.

Discussion

Summing up the essential features we have:

a in the history
1. marked anidrosis
2. lymphatic hyperplasia
3. itching skin

b in the physical examination
1. skin dryness
2. urticaria scripta
3. subnormal temperature
4. low pulse rate
5. low blood pressure

c in the laboratory findings
1. subnormal basal metabolism
2. albumin with rare cast but without impairment of renal function, and without increased non-protein nitrogen in the blood
3. slight secondary anemia
4. urine low in quantity, solids, and nitrogen
5. subnormal vital capacity, carbon dioxide in alveolar air, blood urea, and blood uric acid

None of the physical or laboratory findings are markedly below the normal. With only the basal metabolism alone subnormal, or only one of the other findings alone subnormal the interpretation might be doubtful. But with all the signs and symptoms pointing to disturbance of some sort in the sympathetic nervous system, and all of them such as have been described in cases of hyperthyroidism it seems probable that we are dealing here with a case of endocrine inbalance with the thyroid chiefly involved. As to whether or no all cases of urticaria scripta have the same probable cause we are not prepared to say but believe all such cases should be studied with this possibility in mind.

BOOK REVIEW

Pratt's Intranasal Surgery. Published by F. A. Davis & Co. of Philadelphia.

Feeling that our nasal text books are too confused in their anatomy and given in too little detail when describing operative procedures the author offers this book on "Intra-Nasal Surgery" in the hope that it will supply this double need. 174 pages are devoted to the text and 153 pages to illustrations. The print is large, the margins are wide and the manner of assembly makes for easy reading.

After dealing with the elementary anatomy and physiology he devotes three chapters to such nasal diseases as are likely to lead to operative treatment. The remaining three-quarters of the book discusses intra-nasal surgery, with occasional embryological and anatomical disgressions. Particularly clear and carefully described are his operations on the septum and on the ethmoidal labyrinth. In order not to confuse the reader he omits conflicting theories and methods and confines himself to a description of his own operative technic. This has much of virtue in it though it obliges the conscientious student to seek elsewhere for other recognized procedures.

The beginner will find here detailed and easily followed directions for his intra-nasal operative work which his subsequent experience can build upon. The author states that "a deflected or thickened septum is probably the beginning of nearly all the troubles within the nose" and therefore believes that it "should have first consideration." This conception appears to call for more frequent septal surgery than many would espouse. On the other hand he is conservative in his effort to preserve all normal turbinal tissue. He leaves the middle turbinate intact in his ethmoidal, frontal, and even sphenoidal intra-nasal operations. In dealing with a healthy prominent middle turbinate in combination with a septum requiring straightening, rather than remove the obtruding part of the turbinate he first exenterates the ethmoid labyrinth external to the middle turbinate; later fractures the middle turbinate outward into the space thus gained; and then only, is ready to swing his septum over into the mid-line. Next are discussed paraffine injections of external nasal depressions, neuralgic head pains, turbinal hyperplasias and compensatory septal growths. The last chapters are devoted to intra-nasal operations on the sphenoid, frontal and maxillary sinuses.

The advanced student will not only find helpful operative suggestions but will take particular delight in the illustrations. They are numerous (194 in all), detailed, accurate and beautifully done. Most of them are original; all have explanatory legends. Any can gain benefit from their careful study.

Text-book On Pharmacology and Therapeutics, or the Action of Drugs in Health and Disease. 8th Edition. 1924. By Arthur R. Cushny. Philadelphia and New York. Lea & Febiger. Price $6.

Cushny's text-book retains first place among the works on pharmacology—the science the purpose of which is to determine precisely what physiological functions are altered by drugs, whether the data is obtained in the laboratory or clinic.

The work is now in the eighth edition and it is somewhat surprising and also gratifying to find how much new material of importance it contains;; this shows that pharmacology and drug therapeutics are making steady progress. The author himself in the preface contrasts the space allotted in the therapeutic index to remedies for specific diseaess in this edition with that of an edition 20 years ago: it has increased fivefold.

Among the new subjects introduced are quinidine, insulin, the vitamin of cod liver oil, thyroxin, the use of bismuth in syphilis, etc.; these are discussed adequately from the standpoint of the medical student and the general practitioner; specialists naturally would look to the original sources for more detailed information. A carefully selected list of references is given on each subject.

The author maintains the same judicial and critical attitude towards the action of drugs which has characterized the previous editions; in every case he examines carefully the evidence for the statements made. A careful study of the sections on the relation of drugs to the autonomic nervous system and on organotherapy shows how insecure is the foundation of a considerable proportion of the current medical literature on these subjects.

The work seems to be remarkably free of errors; the reviewer notes one rather important one, however: on p. 610, it is stated that in preparing a solution of arsphenamine for injection 0.1 cc. of normal sodium hydroxide should be employed for each 0.1 Gm of the drug; the figure should be 0.85 cc. to 0.9 cc.

Medical and Sanitary Inspection of Schools, For the Health Officer, the Physician, the Nurse and the Teacher. By S. W. Newmayer, A. B., M. D. Lea and Febiger, Philadelphia and New York, 1924.

The author divides his subject into the following seven parts, viz., administration, the school buildings and grounds, communicable diseases, physical defects, health of teachers, mentality, and allied subjects of school medical supervision.

The book has 450 pages. It is written in an interesting way by one who has had a wide practical experience in the matters of which he treats. The author's presentation of the subject gives any reader a good perspective of the medical problems related to the education of children.

The book is a second edition, but in certain places it is suggestive of dictation without careful revision. The author says a good deal which it is not necessary to say to make the book either more interesting or more easily understood by anybody and he has forgotten to mention some really important matters which would have occurred to him had he taken more time and care in the preparation of this edition. For instance, neither in his instructions for the medical inspection of school children, nor in his general consideration of diphtheria, does he mention the desirability of swab cultures from the nose as well as from the throat, or the importance of a scabby nose child with diphtheria bacilli in his nostril as a factor in the spread of diphtheria among his schoolmates. So, too, in dealing with mentality and intelligence tests, the author slides over and out of this important subject in the easiest way.

Case Records of the Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY
RICHARD C. CABOT, M.D., AND HUGH CABOT, M.D.
F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 10281

An unmarried Amerian woman of fifty-two entered March 26 for study.

F. H. A grandmother and an aunt died of tuberculosis.

P. H. She had measles, whooping cough, scarlet fever and chickenpox as a child, pleurisy at seventeen. For years she had had moderate palpitation. Her ankles swelled when she was up and about. She had some dyspnea. Her bowels were moderately constipated.

P. I. For twenty-one years she had had arthritis which had led to increasing debility and crippling. Practically all of the joints had been affected at one time or another. Fifteen years ago she had her legs straightened under ether and placed in casts. She was able to walk with difficulty for several years after this operation. The crippling process then became worse until she was not able to walk for any distance. For years she had used a chair to get about. In general her disability had been progressive. Lately she had been forced to give up her needle-work. Eight weeks ago she had a period of unconsciousness preceded by a short period of dizziness and headache and some numbness of the left side. She was unconscious for hours, probably the greater part of the day. She had definite convulsions. After this her mouth was drawn to one side, and for hours at a time she saw double. There was no definite paralysis of arm or leg noticed. For hours after the attack she was unable to express herself, and thought she must be losing control of her mind. Since this period of unconsciousness she had had a great deal of trouble in starting the urinary stream and had passed very small amounts, partly because of the small fluid intake. She could not take fluids until the day of admission because of persistent vomiting, projectile, explosive, and coming so quickly that it was impossible to reach for a basin. The vomitus was always yellow and foul smelling. Her memory, particularly for recent events, had been failing. Her headaches had been relieved since the attack. In place of paralysis she thought she had even a freer use of her limbs. She had been extremely dizzy lately, and had had definite blurring of vision. At the time the history was taken she had diplopia and scotomata. She thought she had lost twenty or thirty pounds during the past eight weeks. She had recently had hot flashes. Her menstrual periods stopped last August.

P. E. An old looking, arteriosclerotic, arthritic woman, showing evidence of much loss of weight. Teeth poor; upper teeth false. Mouth foul. Tongue very red and dry. Throat red. Spine rather rigid. Right dorsal scoliosis, slight. *Lungs.* No abnormalities recorded. *Heart.* Questionable enlargement. Rapid. Sounds of poor quality. *B. P.* 135/100. *Abdomen.* Liver dullness almost obliterated by tympany. *Genitals* not remarkable. *Rectal examination.* External hemorrhoids. Examination not complete because of pain. Movements of eyes seemed limited, especially on looking to the right. Fatigue (?) nystagmus at limit of motion to the left. *Fundi.* —3 lens for both eyes. Discs slightly blurred. No hemorrhages, exudate or arteriosclerosis. *Pupils.* Sluggish reactions. *Reflexes.* Knee-jerks absent. *Extremities* and *joints.* Right shoulder practically ankylosed, left slight motion. Right elbow and both knees ankylosed at right angle. Left elbow could be extended beyond right angle. Limited motion of wrists. Fingers completely deformed in flexion. Ankles stiff, varus position. Toes deformed.

T. 97°-101.9°. *P.* 82-113. *R.* normal. *Urine.* Amount normal when recorded, sp. gr. 1.026, leucocytes at the single examination. Urine could not be collected for *renal function test. Blood.* Hgb. 70%, leucocytes 13,400, polynuclears 78%, reds showed slight achromia. Wassermann and non-protein nitrogen tests could not be done because the deformity of the extremities made it impossible to obtain blood. *Lumbar puncture* March 27. 10 c.c. of clear colorless fluid with some detritus. Some red blood cells in first tube. Initial pressure 30. Pulse 1. Respiration 1. Cough 55. After withdrawal of 5 c.c. 0, after withdrawal of 5 c.c. more 0. No leucocytes, 62 red cells. Alcohol high normal. Ammonium sulphate positive. Wassermann negative. Gold solution 1111000000. Total protein 56. *Gastric analysis. Fasting contents* 8 c.c. Free HCl 0. +HCl 4. Guaiac positive. *Test meal* 400 c.c. Free HCl 0. +HCl 4. Guaiac strongly positive. Microscopical examination of both fasting contents and test meal negative except for bacilli and leucocytes in the fasting contents. *Orthopedic consultation.* Do not advise any attempts at correction of the deformities until we know more of the causative factor. *X-ray.* The patient was unable to stand or to lie in such a position that the entire stomach could be visualized. The entire meal was in the stomach at six hours, but owing to the patient's inability to turn to the side the cause of almost complete retention could not be demonstrated. Probably pyloric obstruction.

Orders. March 26. Liquids without milk.

Rectal glucose 10% ℥ iv every three hours when awake. Pantopon gr. 1/6 s.c. b.i.d. March 27 to April 2 inclusive pantopon gr. 1/3 s.c. April 1. Put on constant drainage for twenty-four hours and report intake and output carefully. Rectal glucose 10% ℥ iv to ℥ vi every four hours when awake.

April 1 the patient was stuporous all day. The quality of the pulse was poor. She answered questions, but unintelligibly. April 2 she rapidly failed, went into deep coma, and died.

Discussion

BY DR. RICHARD C. CABOT

NOTES ON THE HISTORY

1. The past history makes us think of a heart case.

2. The attack of eight weeks ago sounds like an embolism. Of course, at fifty-two she is at the age when it may be arterial disease of the arteriosclerotic type.

3. This is the type of vomiting that goes with brain tumor or any other brain lesion.

4. The menopause probably has nothing in particular to do with the case.

5. The history as a whole suggests some brain lesion and also to a certain extent some heart lesion. As we go over the physical examination we shall watch those two systems especially.

NOTES ON THE PHYSICAL EXAMINATION

Here the high diastolic blood pressure is the essential thing. 135 systolic is nothing, but 100 diastolic practically always means hypertension. Of course in this case we have a questionable brain lesion, and brain lesions will give hypertension. So that we have to remember that possibility.

The tympany was probably from constipation.

I should suppose, from what we are told here, that the urine is all right.

I do not know just why they did lumbar puncture.

A Physician: Because of the vomiting?

A Physician: The reflexes were entirely absent.

Dr. Cabot: The vomiting might have something to do with it, but I guess the absent reflexes were the point. The absence of leucocytes in the sediment of the lumbar fluid is the essential thing we want to know. The red cells presumably got in from the tap. The gold solution reaction does not mean anything, although it is on the syphilitic side. I should say that this is a negative fluid in all essentials.

The gastric analysis is mainly negative. There was evidently some retention in the stomach. But there is nothing in the history to suggest pyloric obstruction, and as the examination is not complete I do not believe we need take it very seriously. It is perfectly conceivable that there is cancer of the stomach with brain metastasis. She has had much vomiting, but it has not sounded like the vomiting we expect with stomach trouble.

DIFFERENTIAL DIAGNOSIS

This is a very queer history. I think we probably shall make a wrong diagnosis.

1. The heart does not seem to show much of anything exeept some questionable enlargement associated with high diastolic pressure. My guess is that the heart will show a little hypertrophy and dilatation and nothing else.

2. The lungs do not show anything in particular, so that it is a question of the brain and the stomach. Was the head examined?

Dr. Richardson: Yes.

Dr. Cabot: Then we will argue the brain question as well as we can. I should say she had had a hemiplegia, although it did not show at the time she was here,—numbness of the left side in the beginning and convulsion, mouth drawn to one side, etc. I think there should be a unilateral brain lesion, presumably right-sided. The question is, what? We have nothing in the eye-grounds to back us up in relation to tumor. There is no evidence of choked disc, just a little haziness. I do not see how we can say tumor. If it is not tumor it is more likely to be embolism or hemorrhage, but she has so little paralysis that it is hard to say even that. My guess is that some arteriosclerosis will be found in the brain and nothing else, with tumor as a second possibility.

Now what about the stomach? It seems to me the history is very short for cancer, and if it is not cancer I do not know what it is.

A Physician: Do the two positive guaiac tests mean anything?

Dr. Cabot: I think not. They make us want a more thorough examination. The absence of hydrochlorie acid and apparent block of the pylorus make it impossible to exclude cancer of the stomach, and if there is cancer of the stomach it is impossible to exclude metastasis in the brain. But it does not seem probable. I cannot go any further. The whole case has to be left on the basis of guesses.

Dr. Richardson: Was there anything in the blood?

Dr. Cabot: No.

Dr. Richardson: I wish there had been. This is a hard case.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Chronic infectious arthritis, generalized.
Arteriosclerosis.
Malignancy (?) of stomach with cerebral metastases (?).

DR. RICHARD C. CABOT'S DIAGNOSIS

Chronic infectious arthritis.
Arteriosclerosis, cerebral.

Hypertrophy and dilatation of the heart.
Brain tumor?
Malignant disease of the stomach with cerebral metastases?

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesion*

Unknown cause of death.

2. *Secondary or terminal lesions*

Chronic arthritis.
Anemia.
Slight arteriosclerosis.
Fatty metamorphosis of the liver.
Wet brain.

3. *Historical landmarks*

Chronic pleuritis.
Slight chronic perihepatitis.
Cholelithiasis.
Small fibroma of uterus.

DR. RICHARDSON: The brain was wet, but the vessels of Willis were negative. The sinuses, pineal and pituitary glands and the middle ears were frankly negative.

DR. CABOT: We do not get anything in the brain, then.

DR. RICHARDSON: The chronic arthritis as mentioned was present. The skin and mucous membranes were pale. There was no distension of the abdomen. The muscles were pale and soft. The peritoneal cavity, appendix, esophagus, gastro-intestinal tract were negative. The stomach was rather large, the mucosa thin and pale. The pylorus and the mesenteric and retroperitoneal glands were negative.

The pleural cavities contained no fluid; there were a few old pleural adhesions. We found a few vestiges of the thymus gland.

The heart weighed 300 grams, for her slightly enlarged. The myocarhium was pale, with a thick layer of epicardial fat. The valves and coronaries were frankly negative.

There was a slight amount of fibrous sclerosis in the aorta and great branches. There were a few old adhesions between the liver and the diaphragm.

The gall-bladder contained thirty stones, from one mm. to one and a half cm., but the mucosa was negative. The bile ducts were free and negative. The pancreas showed some fatty infiltration. There was a small fibroma in the uterus.

Histological examination showed some fatty infiltration of the liver. The myocardium was negative. Some stress was laid at the time on the character of the myocardium. And that is all.

DR. CABOT: *Causa mortis ignota.*

DR. RICHARDSON: The picture here, except of course for the chronic arthritis, is not unlike that in the marasmic child.

DR. CABOT: We do not know what she died of. In the case of a necropsy it is well to know that.

CASE 10282

A Canadian farmer of fifty-nine entered December 12. The history was obtained from a friend.

F. H. Not obtained.

P. H. Twenty-five years ago he had rheumatic fever. For years he had had weak lungs, with occasional slight hemoptysis. Two years ago he was in a hospital for a month for "intestinal obstruction." No operation was done.

Habits. He used no tobacco or alcohol.

P. I. For years he had had a non-productive cough. Since May his employer had noticed that the patient had been growing gradually weaker. He was frequently dizzy and at times stiffened up. He had had considerable dyspnea on climbing stairs. He urinated two or three times at night. Three weeks ago after going hunting in the rain he was laid up with pain in the rectum and testicles. A doctor made a diagnosis of abscess of the prostate. Four days ago he had a chill at night and got up at four in the morning to get warm. At five he was seen and looked ill. After breakfast he fell while crossing the room, and had been comatose ever since. He could be roused and answered questions. The day before admission a doctor found he had fever. Seven years ago he weighed 160 pounds, his best weight. He had lost considerable weight lately.

P. E. A well nourished man, almost comatose, with moderate Cheyne-Stokes respiration. Breath ammoniacal. He gripped with the right hand when told. He raised both eyebrows. He could not protrude his tongue. Mouth slightly drawn to the right. Eyes moved to right in midline, not to left. Left arm and leg limp and motionless. Teeth gone. Mouth not examined. A few small glands in the neck, axillae and groins. Examination of the *heart* unsatisfactory on account of emphysematous chest. Impulse in the fifth space just inside the nipple line, four inches from midsternum. Dullness not determined. Action regular except for an occasional extrasystole. Sounds very distant and short. No accentuation of second sound. No murmurs. Pulses occasionally intermittent. Low tension. Artery walls palpable and very slightly beaded. Slight visible pulsation of brachials. *B. P.* 120-105. *Lungs* hyperresonant. Breath sounds throughout feeble. At the left base below the angle of the scapula was marked hyperresonance with diminished breathing and numerous fine

medium râles. *Abdomen* and *genitals* normal. *Extremities.* No edema. *Reflexes.* Normal biceps and knee-jerks on the right, absent on the left. Plantars normal. *Pupils.* Right slightly larger than left. Reactions slight. Left iris showed an old injury.

T. 106°-108.1°. *P.* 130-150. *R.* 37-62. *Urine.* Amount not recorded. A catheter specimen cloudy, sp. gr. 1.014, a slight trace of albumin, many hyalin and granular casts, a few leucocytes. *Blood.* Hgb. 90%, leucocytes 23,800, smear negative.

During the eighteen hours that the patient was in the hospital he did not regain consciousness. The coma gradually deepened. Bronchial râles became audible. December 13 he died.

Discussion

by dr. william d. smith

notes on the history

The past history does not do us much good except to suggest the possibility of organic heart, of tuberculosis, and perhaps of intestinal malignancy.

The cough does not add much to the hint of tuberculosis.

I do not know what "stiffening up" means. His frequent dizziness and his weakness do not give any particular lead except that he probably had some debilitating or some chronic condition that was making him less strong.

The dyspnea again might point to the heart or might point to a tuberculosis or any other debilitating disease.

"Urination two or three times at night" is too often for a man of fifty-nine unless there is some reason, and makes us wonder whether he had a chronic nephritis or a hypertrophied prostate. In a man of fifty-nine, unless we get other evidence, the prostate I think would be the better guess.

One would like to know a little more about that prostatic abscess. One would like to know whether he had retention or fever. As it stands here it does not mean anything except that he probably had something the matter with his prostate. These old people with chronic prostate may have discomfort and pain, and do not necessarily have to have abscess. We do not know whether he had dysuria, retention, fever, or what the story was during the three weeks between his rectal pain and his entrance to the hospital. The chill is the first definite lead we have. He probably is coming down with an acute infectious process, and it may be his prostate, although it is three weeks,—a little long. Still, it may be a urinary infection, a pyelitis due to that old infection, or a sepsis.

notes on the physical examination

"Well nourished" is a little bit against tuberculosis.

"Cheyne-Stokes" means that he was sick.

"Breath ammoniacal" does not mean much to me. Of course it ought to mean a nephritis, but we get that record so many times when it does not mean anything that I am much inclined to disregard it.

He had a left-sided hemiplegia.

If this examination is correct he certainly did not have a big heart, which would count against a chronic rheumatic heart of course. The regular action again would be against the end stage of a rheumatic heart with decompensation. The intermittent pulse is probably the extrasystole that did not get down through to the waist.

He was a farmer, used to hard work; peripheral arteriosclerosis does not necessarily imply cerebral arteriosclerosis.

The patient was very sick, with a low systolic pressure and a very low pulse pressure. 105 diastolic makes us stop an instant and wonder if he had been hypertensive and had come down because of his illness and weak heart. On the other hand, with no evidence at all of enlargement of the heart I do not believe I should come to that decision.

The lung examination is compatible enough with very early consolidation, except that I should not expect marked hyperresonance. But we often get a dull tympanitic note, diminished breath sounds, and a few râles as the early signs of consolidation. I suppose he may have this thing we have heard about lately,—massive collapse. I have not seen enough cases to know what the typical signs are. Dr. Hanser, do you know whether these lung signs could be compatible with massive collapse?

Dr. T. H. Hanser: I do not think so. We had several cases in the wards a few weeks ago. They all had the typical signs of massive collapse,—absent breath sounds and the heart and mediastinal contents partly pulled over to the affected side.

Dr. Smith: Then we shall have to put his lung signs down either as probable early consolidation or as an unexplained finding. Apparently he was emphysematous everywhere, and may have been more emphysematous and hyperresonant there.

He apparently had no Babinski on the paralyzed side.

The pulse and respiration suggest an acute infection. The high respiration rate suggests a pulmonary infection, and in connection with the hyperresonance and signs in the chest points a little more definitely toward pneumonia.

The report of the urine is meaningless so far as I am concerned. There is no definite sign of nephritis. It might perfectly well be the urine

of any infection with high fever, particularly a pneumonia.

The high hemoglobin makes an old tuberculosis very unlikely, and also makes nephritis pretty unlikely. There is a high leucocytosis.

DIFFERENTIAL DIAGNOSIS

I cannot make any etiological diagnosis on this man other than guess work. It is fairly obvious that he had been failing in health. I believe that he probably had a chronic prostate, and he may have had an acute urinary infection three weeks ago when he came back from hunting; we do not know any of the interval history. There is no reason to assume that this chill was a manifestation of sepsis following his trouble after going hunting, but it may be, and we have to think of that. The man may be acutely septic, and the condition may date back to the urinary infection, but we have no definite data on which to make that diagnosis.

It seems to me that about the only thing that is clear is that four days ago he had a chill at night, which means the onset of an acute infection. The next day he fell partially unconscious when he was crossing the floor, and either then or later developed the signs of complete left-sided hemiplegia. He is in the hospital obviously with an acute infection, with a question of lung pathology, with a high leucocyte count and a left-sided hemiplegia. There is no definite evidence of tuberculosis, urinary infection, prostatic abscess or any septic condition.

Why did he have the hemiplegia? Was it embolus? was it thrombus? was it hemorrhage? There is nothing in the examination of his heart or heart history that would lead us to believe that he had an embolus. At the same time Dr. Richardson may say he had. There is nothing in the history that makes us believe it is a manifestation of uremia or a thrombosis.

I do not think that we often get a cerebral hemorrhage in the course of an acute infection. If we knew what the history had been since he had his pain and trouble in the testicles three weeks before we might paint a different picture. As long as I have to guess I will say that this man has a cerebral hemorrhage, that he has hypertropy of the prostate, and that he has a pneumonia. That is the best I can do.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Left hemiplegia (embolus).
Dilated heart.
Emphysema.

DR. WILLIAM D. SMITH'S DIAGNOSIS

Cerebral hemorrhage.
Hypertrophied prostate.
Pneumonia.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesion*

Septicemia, staphylococcus aureus.

2. *Secondary or terminal lesions*

Infarcts of the spleen and kidneys, septic.
Septic spleen.
Arteriosclerosis of the coronary arteries.
Fibrous endocarditis of the mitral valve, slight.
Hypertrophy and dilatation of the heart.

3. *Historical landmarks*

Obsolete tuberculosis of a mesenteric lymphatic gland.
Emphysema.

DR. RICHARDSON: In this case there evidently was at the time more or less question in regard to the clinical picture's being one of collapse. We could not find in the brain any definite lesion. There was some question whether or not there was any meningitis. The pia was a little reddened and seemed to be a little thickened, but microscopical examination showed no definite lesions. The brain tissue was a little pale and a little soft, and of course there is the possibility that a small area of softening may have been overlooked, but there was no definite evidence. It also may be possible that there was a beginning meningitis and that the sections we took did not show it. The gross description suggests it.

DR. SMITH: Localized?

DR. RICHARDSON: Rather general. The pia showed much injection, and at the base it was suspicious enough so that I took pieces. I do not think it is ruled out absolutely.

The lungs were free except for a small band of adhesions between the lower lobe and the diaphragm. There was some emphysema of the peripheral portion of the lungs, so that anteriorly the heart was quite well covered by the lung. The heart weighed 365 grams,—a large heart with a flabby myocardium, soft,—what is called acute degeneration or cloudy swelling. The valves were negative. The coronary arteries showed considerable sclerosis in places, and in places some diminution of the lumen. There was a slight amount of arteriosclerosis of the aorta and the other great branches.

The spleen weighed 250 grams—slightly enlarged,—and was sown in places with septic infarcts. The kidneys' combined weight was 365 grams. There was no definite nephritis as such, but the organs were plentifully sprinkled with septic infarcts, hemorrhagic areas, and abscesses.

Culture from the heart blood and the spleen yielded a staphylococcus aureus. This was confirmed by the sections from the spleen and kidneys, in which masses of bacteria were found in the septic infarcts.

DR. SMITH: And the question of the primary source?

DR. RICHARDSON: That is not definite. Possibly the abscess of the prostate.

DR. SMITH: That was previous to the time he got sick. He had this pain which the local physician said was prostatic abscess, and then we have no further history until he wakes up with a chill.

DR. RICHARDSON: It is claimed by some men that staphylococcus septicemias come in through that doorway.

DR. SMITH: He showed nothing at that time. One would think so big a sepsis would have left some scar on the prostate.

DR. RICHARDSON: There is no other portal that we have found. It may have been a small abscess.

DR. LINCOLN DAVIS: Were both kidneys affected?

DR. RICHARDSON: Yes.

DR. SMITH: How would you feel about that prostate's being a source of that septicemia?

DR. DAVIS: I do not think we could say. These cases of acute septic infarcts of the kidney arise without any focus in the rest of the urinary tract frequently. We used to see them a number of years ago and operate on them as acute hematogenous infection of the kidney, and frequently they would be unilateral. I have not seen any personally for a number of years.

CASE 10283

An Irish-American housewife of fifty-six entered March 4 complaining of sour stomach. She was in much pain and very clouded mentally, forgetting questions before she could answer them. The history is therefore scanty and quite unreliable.

F. H. Good.

P. H. Not obtained.

P. I. Six weeks before admission she began to have sour stomach. Soon afterwards her bowels began for the first time to be very constipated. Since the onset she had had periods of diarrhea. Three weeks ago she noticed that her abdomen was growing larger. Since that time she had been growing steadily worse. She had had much abdominal discomfort, loss of weight and strength, increasing enlargement of the abdomen, sour eructations, and alternate periods of diarrhea and constipation. She had recently noticed some bright blood in the stools. Once after medication she had tarry stools. She had recently had much trouble from gas.

P. E. A very cachectic and emaciated woman, incoherent and confused, evidently in considerable pain. Skin very dry and loose except over the abdomen. Tongue coated, with a brown crust. Deep fissures on posterior aspect. *Lung* examination unsatisfactory because of loud and constant groaning. Questionable slight dullness, especially in the left base. Occasional râles at both bases. *Heart.* Apex impulse in the fifth space. No measurements recorded. No enlargement to percussion. A blowing systolic murmur at the apex and several short systolic murmurs at the aortic area. No diastolic. *B. P.* 90/40. *Abdomen* much enlarged, tense. Dullness in both flanks. Fluid wave. On the right in the region of the cecum a definite hard irregular mass. *Rectal examination* negative. *Genitals, pelvic examination* and *reflexes* not recorded. *Pupils* contracted. Reactions abnormal.

Before operation *T.* and *R.* not remarkable, *P.* 80-122; *urine* cloudy, sp. gr. not recorded, a very slight trace of albumin, 1-5 leucocytes per high power field. *Blood* and *Wassermann* not recorded. *X-ray.* The barium entered and filled the colon as far as the splenic flexure readily and without discomfort. The patient was unable to retain enough of the barium to distend the colon beyond that point. No definite evidence of pathology could be made out.

March 6 operation was done. The patient was in very poor condition next day. The pulse was weak and thready, the respirations down to 8. March 8 and later there was very little change. The pulse grew somewhat weaker. She took practically nothing by mouth, and did not retain rectal tap water. She gradually failed, and March 11 died.

DISCUSSION

BY DR. EDWARD L. YOUNG, JR.

I think we are prejudiced at the first when a patient in the cancer age comes in complaining of sour stomach and is in such poor general condition that she is mentally clouded.

The present illness bears out this early feeling in that it points very strongly toward either a very rapidly growing carcinoma, presumably in the large bowel, or else a tumor the nature of which allowed it to grow for some time without giving any important symptoms, so that when it finally reached the stage of irritation and partial obstruction it was so advanced that it rapidly impaired her general condition.

Examination gives still further confirmation of this belief in the general appearance of the patient.

Have we evidence enough on which to make any other diagnosis? It is very unusual for diverticulitis of the sigmoid to progress to any marked degree without giving symptoms sufficient to attract the attention even of a very apathetic person. It is hard to see how any other type of inflammatory disease, such as acute appendicitis, which can be very atypical

at this age, could give this type of symptoms without something else to suggest a more definite localization of trouble. Of course the examination says that there is a mass in the region of the cecum. I believe that is more likely to be the mass of malignant disease than of inflammatory disease.

It would seem as though this patient had reached the point where operation was extremely hazardous, and to be done only on the basis of the impossibility of making an absolute diagnosis of malignant disease, so that if by any chance it is inflammatory and she survives the shock of operation she will recover.

The X-ray apparently does not help us and does not even suggest that there is any obstruction in the splenic flexure at the point where the enemas stop.

I should say on the chances that we are dealing with malignant disease, probably in the cecum, with a very atypical appendicitis with abscess formation as a very poor second. The fluid in the abdomen is of course due to the diffusion of the malignant disease through the peritoneum. I do not think that we are in the least justified in considering it evidence of portal stasis.

DR. YOUNG'S PRE-OPERATIVE DIAGNOSIS

Abdominal carcinoma, probably in the large bowel.

PRE-OPERATIVE DIAGNOSIS

Carcinoma of ovary.

OPERATION

Local novocain. A small incision in midline evacuated a large amount of bloody fluid. The peritoneum and small intestines were covered with small nodules. A portion in the parietal peritoneum was removed for examination. The growth was apparently primary in the pelvis. No attempt at removal was made.

FURTHER DISCUSSION

Apparently operation was done on the basis that you cannot spoil a bad egg, because they did not expect to find anything other than a carcinoma, although they localized it outside of the bowel rather than in the bowel itself, and apparently their diagnosis is borne out by what little they can discover at operation. Of course it is true that early in malignant disease of the ovary there is ascites, but there is always fluid in the abdomen when carcinoma has become diffuse over the peritoneum, and for that reason it does not seem to me from the reading at least that one would be justified in saying whether the disease was primary in the bowel or outside.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Carcinoma of the colon.
Carcinoma of the ovary.
Carcinomatosis, primary in ovary (?).

DR. EDWARD L. YOUNG'S DIAGNOSIS

Carcinomatosis, primary in bowel.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesions*

Cholelithiasis. Stone in the bladder and bile ducts, with dilatation of the bile ducts.
Carcinoma of the gall-bladder with metastases in the liver, peritoneum, and retroperitoneal lymph glands.

2. *Secondary or terminal lesions*

Ascites.
Bronchopneumonia, lower lobe of right lung.

3. *Historical landmarks*

Operation wound.

DR. RICHARDSON: The skin and mucous membranes were very pale.

The peritoneal cavity contained about 2000 c.c. of thin brownish red fluid, and the peritoneum everywhere was thickly sown with discrete and confluent gray-white plaques of new-growth-like tissue. The gastro-intestinal tract on section was negative. The great omentum was sown with smaller and larger nodules of new-growth-like tissue. The retroperitoneal glands in the region of the lesser omentum and along the aorta were enlarged up to 2 cm. in greatest dimension. They were infiltrated with new-growth-like tissue. The lungs were negative except for areas of bronchopneumonia in the lower lobe of the right lung. The heart weighed 290 grams. The aorta and great branches showed only a slight amount of fibrous sclerosis.

The liver weighed 1425 grams. (Normally 1200-2400.) Scattered over the surface were numerous smaller and larger nodules of new growth tissue, and in the substance of the liver there were many similar nodules.

The gall-bladder was much enlarged, 12 cm. by 4 cm. by 3½ cm. The peritoneal surface of the bladder was sown with smaller and larger plaques of new growth tissue. The bladder contained a large mass of old blood clot which filled the cavity. Embedded in this blood clot, just above the cystic duct opening, were numerous small facetted stones from 4 to 6 mm. in greatest dimension, with one 10-14 mm. They crushed under the thumb, showing brownish crystalline material. In the cystic duct there were two small similar stones, and in the common duct extending from the ampulla up to the hepatic duct there were seven facetted stones in a row. The gall-bladder wall in the

region of the fundus was thickened up to 1½ cm. and infiltrated with new growth tissue. This new growth infiltration extended down along the wall for 5 cm. The mucosa opposite the thickened wall was slightly irregular and pale grayish-yellow. The wall of the bladder elsewhere was slightly thickened and the mucosa slightly granular. The cystic duct was dilated, 1½ cm. in circumference. It contained the stones mentioned. The mucosa was smooth. The common duct was considerably dilated, 4 cm. in circumference, and the dilatation extended down to just above the ampulla of Vater, where the duct circumference was about normal. The mucosa was negative. The duct contained the stones mentioned. The hepatic duct was slightly dilated and the mucosa negative. No stones were found in the duct or in its radicles in the liver.

The bone marrow of the vertebrae was rather pale, otherwise negative.

A case then of cancer of the gall-bladder with metastases, associated with cholelithiasis and terminal bronchopneumonia.

DR. YOUNG: I think the anatomical diagnosis bears out my logic in regard to the ascites, but equally throws down my diagnosis of intestinal carcinoma. It is one of the cases where carcinoma may have developed at the site of long continued chronic irritation from a stone in the gall-bladder, and I think probably if we had got an accurate past history before the patient had become so confused and run down we should have had a story of indigestion and possible attacks of pain suggesting trouble in the biliary tract. It is one more case giving basis for the argument of operation on gall bladder disease whenever the diagnosis can be made.

CURRENT LITERATURE

ABSTRACTORS

GERARDO M. BALBONI	CHARLES D. LAWRENCE
WILLIAM B. BREED	TRACY MALLORY
LAURENCE D. CHAPIN	HERMAN A. OSGOOD
AUSTIN W. CHEEVER	FRANCIS W. PALFREY
RANDALL CLIFFORD	EDWARD H. RISLEY
ERNEST M. DALAND	GEORGE C. SHATTUCK
HORACE GRAY	WILLIAM H. SHEDDEN
ROBERT M. GREEN	WARREN R. SISSON
JOHN B. HAWES, 2D	JOHN B. SWIFT, JR.
JOHN S. HODGSON	GEORGE G. SMITH
FRED S. HOPKINS	W. T. SHERMAN THORNDIKE
CHESTER M. JONES	WILDER TILESTON
BRYANT D. WETHERELL	HENRY R. VIETS

PATIENT WITH DIABETIC DERMATITIS TREATED WITH INSULIN

DAVIS, W. D., and CALHOUN, T. J. (*Arch. Derm. and Syph.*, Vol. 9, No. 3, March, 1924) report the case of a woman of 59 with a diabetic dermatitis, especially about the vulva and folds of the body, which had been present off and on for three years and constantly for two more; local and dietetic treatment produced no amelioration, but insulin with proper diet gave a clinical cure in a month.

[A. W. C.]

A STUDY OF THE GROWING POWER OF PERIOSTEAL CALLUS WHEN TRANSPLANTED TO COSTAL CARTILAGES

KLINKERFUSS, G. H. (*Surgery, Gynecology and Obstetrics*, May, 1924). This author states that this work is undertaken to compare the difference between the growing power of autotransplants of peri osteal callus and of the solid bone when grafted to the costal cartilages. Periosteal callus was selected because at certain stages it is composed of rapidly proliferating osteoblasts on a highly vascularized stroma, and therefore it was thought that this tissue would generate bone much more rapidly than solid bone.

The author states that the following conclusions would seem to be justified:

1. Callus grafts do not die, but continue growing after transplantation.
2. Solid bone grafts, in the main, die, are absorbed, and replaced by new bone tissue resulting from the proliferating of osteoblasts of the periosteum, endosteum, and haversian canals.
3. Callus grafts persist as long as solid bone grafts, and become quiescent at about the same time.

[E. H. R.]

ON THE INCREASE OF THE PERMEABILITY OF THE CHOROID PLEXUS TO ARSPHENAMINE WITH METHYL VIOLET

SMITH, D. C., and WADDELL, J. A. (*A. J. Syph.*, Vol. 8, No. 2, April, 1924) found that methyl violet when given intravenously does not increase the permeability of choroid plexus to arsphenamine in dogs.

[A. W. C.]

MULTIPLE POLYPOSIS OF THE GASTRO-INTESTINAL TRACT

STRUTHERS, J. E. (*Surgery, Gynecology and Obstetrics*, May, 1924). Struthers reports on 20 cases observed at the Mayo Clinic from February, 1920, to January, 1923, and concludes as follows:

1. Multiple polyposis of the intestinal tract is a serious disease from the standpoint of morbidity and mortality.
2. The cause of intestinal polyposis is not known, although chronic ulcerative colitis appears to be a prominent factor.
3. There is no specific medical treatment, and operation undoubtedly offers the best results in all cases.
4. The predominant symptoms are diarrhoea, with the passage of pus and blood, vague abdominal pain, and rectal tenesmus.
5. Multiple polyposis is a disease of the large intestines and of the stomach. The small intestines are rarely involved.
6. Proctoscopic examination should be made routinely in all cases of dysentery of more than a few days' duration.
7. The roentgen ray is practically the only means of diagnosing multiple polyposis of the stomach, or above reach of the proctoscope in the bowel.
8. The disease terminates in malignancy in a large percentage of cases.
9. Most marked involvement of the colon is found in the cases which begin as a mild diarrhoea and later become chronic.
10. The findings in one patient would tend to confirm the correctness of Menetrier's terminology, "gastritis polyposis."

[E. H. R.]

CYSTS OF THE WOLFFIAN BODY

HINMAN, F., et als. (*Annals of Surgery*, May, 1924). These authors draw the following conclusions from their observations:

1. Cysts of the Wolffian body are of such rarity as to warrant reporting.
2. The case reported is a true Wolffian body cyst,

as evidenced by the finding of primitive renal structures in its wall.

3. Pathologically great confusion exists in the literature, as shown by the large variety of cysts which have been attributed to Wolffian origin. In the absence of any definite relationship to retroperitoneal organs, the presence of all such cysts in that region or between the layers of the mesocolon are probably of Wolffian origin, even though recognizable primitive renal elements are not to be found in their walls.

4. Wolffian body cysts have generally been found in the female. This is probably due to the fact that a greater portion of the Wolffian body and duct become vestigial remnants in the female, whereas in the male it is almost entirely utilized in the formation of the genital tract.

5. Cysts of the Wolffian body may occur at all ages, but especially during adult life.

6. The symptomatology consists chiefly of secondary compression phenomena, varying with the size and location of the tumor. These cysts may grow to a volume of ten litres.

7. Diagnosis is chiefly one of exclusion and is usually made at operation or on later pathological study.

8. Treatment consists of early and complete removal because of the tendency toward malignant degeneration in certain types.

[E. H. R.]

The Value of the Roentgen Examination in the Early Diagnosis of Post-Operative Ileus

Case, J. T. (*Annals of Surgery*, May, 1924). This author shows that a differentiation, even without the use of barium, can be made by the X-ray between gaseous distention of the small intestine and the same distention in the large intestine. His article is extremely well illustrated with beautiful plates demonstrating his text. He believes that this examination can be made with very little disturbance to the patient and will often tell in the early stages immediately whether the patient is suffering from small or large intestine obstruction or no obstruction at all. The article is of considerable significance.

[E. H. R.]

Tumors of the Xanthoma Type

Garrett, C. A. (*Archives of Surgery*, May, 1924). Garrett's article follows that of Bloodgood on Xanthoma, Bloodgood's article serving as an introduction to the article in question. This author summarizes his experiences as follows:

"We have, therefore, among these 196 cases, 137 cases, in five groups, which are in many respects very similar and which we believe should be considered together, at least theoretically, for classification and treatment.

"The fibrohemangiomas present a typical picture, as do the fibromas of the tendon sheath. The granulation tissue tumors are often confusing, and in the bursae we may find tumors that are of this granulation tissue type. Xanthoma is to be found in the knee joint and here presents the same picture as the other tumors of the group. A larger part of the tumors of tendon sheath and fibrohemangioma might be called 'Xanthoma.' On the other hand, seven of the 30 cases of fibroma of the tendon sheath show characteristics of granulation tissue; and among the granulation tissue tumors five present the characteristics of the fibrohemangioma. We do not suggest any name for this confused group of cases unless they might be called 'endotheliogranulomas.'

"Thus, the tumors may appear in the tendon sheaths, usually below the wrist and the ankle; in the subcutaneous tissue, in any part of the body, but usually below the knee and ankle, and bursa or joints, usually the knee. They may occur at any age, usually grow slowly, and the duration of symptoms is generally in terms of years. Clinically, these tumors are sometimes called malignant. We have no evidence that the roentgen ray is of value in diagnosis. The gross pathologic condition is occasionally confused with malignant neoplasms.

"I have considered microscopic pictures in the separate cases. I shall review the features briefly. The characteristic eosin-staining intercellular tissue varies in density and often has spindle cells. The cellular elements are many. The spindle cells often resemble sarcoma cells. Large round cells with blood pigment are usually present. The pigment in these cells is always exogenous. Blood pigment may also appear in the intercellular tissue. Giant cells may or may not be present without adding any particular significance as regards prognosis, etc. So-called foam cells or xanthoma cells may or may not be present. They are most often absent in our cases, and I doubt that this is ever evidence of a specific type of neoplastic cell; and at least it is not specific for the xanthoma tumor. Proliferation of endothelial cells is often noted. Blood vessels and capillaries may or may not be increased in number. There is an absence of any histologic features which can be definitely considered as evidence of malignancy.

"The question of operation is interesting, local excision being performed in practically all our cases. Fifteen per cent. of our tendon sheath cases recurred, but the patients remained well after subsequent operation. When they occur in the subcutaneous tissue they never recur. When in the synovial membrane of the larger joints they have a tendency to become malignant. I have pointed out that two of our patients remained well after incomplete local excision without subsequent treatment.

"The only difficult point is to differentiate the benign tumors from sarcomas and carcinomas. Taking the clinical evidence into consideration, the final diagnosis must be made from the microscopic study, and one must be familiar with both the benign and the malignant tumors which sometimes closely simulate one another."

[E. H. R.]

Renal Glycosuria

Finlay, F. G., and Rabinowitch (*Quarterly Journal of Medicine*, April, 1924) report six cases of renal glycosuria. Their first case has been observed over a period of 29 years, during which glycosuria has persisted but no signs of true diabetes have developed.

The criteria for the diagnosis of this condition are the presence of glycosuria which is little influenced by diet, a normal or subnormal fasting blood sugar and a normal blood sugar curve following the administration of glucose, and, most important of all, the absence of symptoms of diabetes mellitus; i. e., loss of weight, thirst and polyuria. It is essential that the case should have been observed for several years before a positive diagnosis is made, because a few cases of diabetes mellitus start under the guise of renal glycosuria.

The condition is often familial, and occurs twice as often in men as in women. All ages are affected. The quantity of sugar excreted is not large, usually not over 10 grams in 24 hours, in a concentration of ½ per cent. or less. Sugar is usually constantly present, though periods may occur in which the urine is sugar-free. The glycosuria is but slightly or not at all influenced by the amount of carbohydrate in the diet, and, unlike true diabetes, sugar is not apt to appear after meals if it is absent before them.

In another group of cases, described by Graham, the excretion of sugar was larger, up to 50 grams, and the blood sugar rose to an abnormal height after glucose, but the symptoms of diabetes did not develop, and sugar was excreted with the blood sugar at a normal or subnormal level. These cases seem to be intermediate between renal glycosuria and

diabetes mellitus, and have been termed diabetes innocens.

Renal glycosuria also appears as a transitory phenomenon rather frequently during the latter part of pregnancy, to disappear after confinement. It is quite devoid of pathological significance under these circumstances.

From the point of view of treatment, restriction of carbohydrates is not necessary in renal glycosuria, and may be harmful. Such people should be accepted as good risks for life insurance.

[W. T.]

The Continued Intravenous Drip

Matas, R. (*Annals of Surgery*, May, 1924). This author presents a very interesting and valuable article on this subject, which is rather new to the profession. He also makes some valuable remarks on the value of continued gastric drainage and irrigation by fixed intubation with the gastro-duodenal type in surgical practice. The solution which the author prefers for continuous intravenous use is a 5 per cent. glucose solution, and he concludes his article as follows:

"In conclusion, allow me to repeat that for certainty of dosage, promptness and duration of effect in sustaining a weak or failing circulation none of the methods of cardiovascular stimulation at present in vogue can compare with the continuous intravenous drip. When glucose is made the basis of the infused fluid, the continued intravenous drip is incomparably superior to all the other methods of parenteral nutrition and medication, as it supplies continuously an easily assimilated foodstuff in isotonic solution for an indefinite time. In this way it serves the purpose of a blood-replacing and nutrient fluid, constantly supplied; in addition it is a cardiovascular stimulant, a diluent (of toxins and catabolic products), an eliminant (especially by the renal route), and a neutralizer of the acidosis which is present and so often adds to the dangers which beset the precarious existence of the patients now under consideration."

[E. H. R.]

Amoebic Liver Abscess

Lear, M., and Merrill, E. S. (*Annals of Surgery*, May, 1924). Lear and Merrill report two cases occurring in Connecticut, with case reports and clinical findings:

1. Amoebic abscess of the liver is reported for the first time in Connecticut, coincident with a small epidemic of amoebic dysentery.

2. The definite diagnosis of solitary amoebic liver abscess was in both cases established by exploratory laparotomy and aspiration. In climates where tropical diseases are uncommon this procedure is safer than a blind hepatic puncture.

3. Rogers' method of treatment by aspiration and systemic emetine medication is productive of better results than the open incision and drainage method. In the latter procedure failure is due to secondary pyogenic infection of the abscess cavity.

4. A striking drop of the temperature to subnormal, immediately following the operation, was noted in both of the cases herein reported.

5. Neither of our patients required repeated aspiration, and to date there has been no evidence of recurrence.

[E. H. R.]

Value of Sacral Nerve Block Anesthesia in Surgery of the Prostate Gland and Bladder

Judd, E. S., and Meeker, W. R. (*Journal of Urology*, April, 1924). Surgery of the prostate and bladder by the suprapubic route can in most instances be satisfactorily performed under local anesthesia. Infiltration, or suprapubic field block, gives adequate anesthesia for the suprapubic incision. For anesthesia of the prostate a choice may be made from the following methods: (1) periprostatic infiltration through the perineum; (2) periprostatic infiltration through the bladder wall; (3) pudic nerve block and periprostatic infiltration through the perineum; (4) parasacral nerve block and periprostatic infiltration through the bladder when necessary; and (6) transsacral nerve block associated with a low epidural injection. The last method gives complete bladder anesthesia, so that lesions of this organ, as well as of the prostate, can be treated. For removal of the prostate, anesthesia of the entire pelvic floor permits forceful enucleation in the difficult cases and facilitates packing of the prostatic capsule, or insertion of the Hagner bag. While the operator must be skilled in the induction of anesthesia by this method, we believe that, after some experience with local anesthesia, he will consider the transsacral method the one of election.

[B. D. W.]

Ethylene Anesthesia in Genito-Urinary Surgery

Luckhardt, A. B., and Kretschmer, H. L. (*Journal of Urology*, April, 1924). Our experiences with ethylene-oxygen anesthesia, employed under the special conditions and requirements of genito-urinary surgery, confirm the results of Luckhardt and Carter, and Luckhardt and Lewis. The advantages of ethylene-oxygen over nitrous-oxide oxygen are very definite. Since these advantages have been pointed out in the several previous papers and briefly alluded to in this contribution, no special mention of them is made. Worthy of special mention is the fact that this small series comprises many patients in whom pathology other than that for which they were operated upon made the choice of the anesthetic a matter of great moment with respect to its action during the operation as well as to post-anesthetic complications.

As a result of our experience ethylene-oxygen anesthesia is the anesthesia of choice in the presence of pulmonary, cardiac, vascular, and renal lesions.

[B. D. W.]

Report of Two Carcinomata of Kidney with Origin in Papillomata of the Renal Pelvis

McClellen, R. H. (*Journal of Urology*, May, 1924), reports two cases of carcinoma of kidney apparently arising from papillomatous growths in pelvis. In the first case, hematuria was the outstanding symptom; but in the second, the cardinal symptoms of kidney tumor were present,—mass, pain and hematuria. X-ray in both cases with pyelogram failed to show the position or type of kidney involvement. Phthalein in both cases was in normal range.

In the first case the pathological picture was so-called benign papilloma of pelvis, save that an occasional mitotic figure was seen in the lining cells; no definite break in basement membrane was demonstrated. However, the metastases were extensive clinically. Diagnosis: Papillary carcinoma of the pelvis of kidney, secondary carcinoma of kidney parenchyma, arteriosclerotic kidney.

In the second case the picture of the new growth was principally that of a polycystic growth with some tendency toward papilloma formation. The origin is believed to be in the kidney pelvis, beginning as a so-called benign papilloma. The possibility of origin in kidney tubules was not overlooked. Diagnosis: Papillary carcinoma of pelvis of kidney, secondary carcinoma of kidney parenchyma. The first case died several weeks after operation. The second has no evidence of recurrence six months following operation.

[B. D. W.]

Blue Sclerotics, Brittle Bones and Deafness

Stobie (*Quarterly Journal of Medicine*, April, 1924) makes an interesting contribution to the study of this remarkable inheritable condition.

The sclerae are of a bluish color, varying from light to deep blue, sometimes slaty-blue. The bones are abnormally fragile (osteopsathyrosis, osteogenesis imperfecta), and fractures, often multiple, are frequent. Deafness, due to otosclerosis, occurs in early adult life in a considerable proportion of these people.

Since the association of blue sclerae with osteopsathyrosis was not discovered until recently, it is impossible to say whether all cases of this bone condition have blue sclerae.

In the family reported by Stobie, in which five successive generations were affected, brittleness of the bones was never encountered in the absence of blue sclerotics, nor was deafness, but 10 out of 18 afflicted members showed the blue color in the absence of fractures. Most, but not all, of those with blue sclerotics who reached adult life showed deafness. In many cases the teeth were brittle too.

The transmission was direct, with no instances of skipping a generation, the children of unaffected members never showing the characteristic. Transmission occurred both through the male and the female. These features point to a dominant Mendelian character.

[W. T.]

The Cause of Stone in the Urinary Tract

Spitzer, Wm. M., and Hillkowitz, P. (*Journal of Urology*, April, 1924). If stasis were responsible, then stone ought to occur in most cases of hydronephrosis. If infection is to bear the blame, we should find stone in long-standing kidney tuberculosis, abscess, or other infectious processes. As a matter of fact, stone is rare in the cases mentioned. Neither is it the combination of stasis and infecton.

These three are the postulates: (1) The exciting cause must produce stone without the aid of stasis or infection. (2) It must be shown that it is followed by stone formation in every case where it operates. (3) Artificial production of stone in vitro.

The desired goal is still far from having been attained. The urine, containing normally a number of colloids delicately balanced to maintain the solubility of the solids, may be thrown out of equilibrium by any pathologic process, be it of metabolism or alteration in the urinary passages. There is no necessity for the conception of a stone nucleus. Any colloid thrown out of suspension may be the starting point for a stone. Offering a relatively large surface, it may, by the faculty of adsorption, favor the incrustation of crystals. In brief, any heterogenous substance, any foreign particle, even an air bubble, in a supersaturated solution, may serve as a starting point for stone formation.

[B. D. W.]

Gradual Decompression in Chronic Vesical Distention

Shaw, E. C., and Young, Hugh H. (*Journal of Urology*, April, 1924). In the majority of cases of chronic urinary obstruction with a residual urine of over 400 cc., immediate and continuous bladder drainage is followed by a more or less severe reaction. The reaction may be predominantly renal, circulatory, or nervous, but usually there are symptoms referable to all three systems. The reaction in the urinary tract is the most constant and is shown by bleeding from the bladder and kidneys, the appearance of albumen and casts in the urine, and frequently by an abrupt fall in the renal function as shown by the phthalein test and blood chemistry studies. All these symptoms may be present without any change in the blood pressure. Sudden reduction of increased vesical tension renders the kidneys more susceptible to infection. The reaction in the circulatory system occurs less frequently but may be quite severe. The systolic blood pressure may fall below 60 and the patient go into a condition resembling surgical shock. Complete suppression of urine occurs as a result of the lowered blood pressure. The studies do not show that the blood pressure is regularly increased in prostatic hypertrophy, even when accompanied by marked chronic vesical distention. Mild nervous and mental symptoms frequently follow sudden drainage of the overdistended bladder. These consist of irritability, lethargy, memory disturbance and a tendency toward flighty speech. A few cases become violently delirious. These symptoms may occur without any changes in the blood chemistry. By gradually reducing the bladder pressure the reaction can be avoided in most cases. The apparatus presented herewith furnishes an accurate method for gradual decompression of the bladder and simultaneous vesical lavage with antiseptics. While the kidney function improves under continuous drainage against gradually decreasing pressure, the danger of infection is obviated.

[B. D. W.]

Resection of the Nerves of the Kidney for Nephralgia and Small Hydronephroses

Papin, E., and Ambard, L. (*Journal of Urology*, April, 1924). Pain is most commonly the result of pelvic distention but may be due also to some affection of the parenchyma, for example, chronic sclerosing nephritis or some form of pyelonephritis. Sensations of pain travel by way of the renal plexus and the resection of the latter completely checks the pain. In dogs the excretion is not interfered with as a result of resection of the nerves of the renal pedicle. The operation has been performed six times for pain associated with small hydronephroses. In four of these cases there has been no recurrence of pain up to June 15, 1922. Two cases have not been benefited. Functional tests reveal no difference in the action of both kidneys.

In judging the value of the method it is only fair to state that in all cases a decapsulation and nephropexy were performed. The method is, of course, only applicable to hydronephrosis where no obstruction is present. Unfortunately the degree of the hydronephrosis has not been controlled before and after operation by pyelography.

[B. D. W.]

Epithelioma of the Penis

Barringer, B. S., and Dean, A. L., Jr. (*Journal of Urology*, May, 1924). Both papillary and infiltrating carcinoma of the penis may be removed by radium, if the tunic covering the glans penis has not been penetrated. After penetration of the tunic surgical removal 2.5 cm. proximal to the growth is indicated. Metastasis probably occurs by embolism through the lymph channels, and is usually noted earliest in the inguinal lymph nodes. From existing statistics, it is probable that inguinal involvement by carcinoma is relatively late, and occurs in rather less than 40 per cent. of cases. The authors believe that the best results are obtained by conservative treatment of the inguinal nodes, with routine X-ray of all cases, withholding surgical removal until they are believed to be definitely carcinomatous. Then, after removal, the lymph channels should be radiated. No surgery should be done on the inguinal nodes if they are the site of a pyogenic infection. The source of such infection, the penis, should be dealt with first.

[B. D. W.]

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THE ANNUAL MEETING OF THE HARVARD MEDICAL SCHOOL ALUMNI ASSOCIATION

A LARGE attendance greeted Dr. Joslin, President of the Association, when he called the meeting to order at 12 o'clock, Wednesday, June 18, at the Medical School.

Instead of confining himself to reading the records of the previous meeting Dr. F. M. Rackemann gave an interesting account of the activities of the Committee having in charge the soliciting of funds for the Dormitory. The original Committee of Six had been enlarged to forty-two and circulars had been sent to every person who had been a student in the School. The members of the Committees had been the guests of Dr. Joslin on three occasions when plans were formulated for the drive for funds. On March 29th enough money had been secured to enable the Committee to purchase the land and title was passed over to the President of the University.

Thirteen hundred and thirty-eight doctors have contributed an average of seventy dollars to the fund. The preliminary effort was concentrated on a demonstration of approval by the alumni so that until this had been made evident very little effort had been made to interest the general public. Now that this large proportion of graduates has shown approval it will be easy to interest people outside the profession.

The appeal for larger gifts for the University has operated to some extent to divert interest from the Medical School Dormitory, but now that the immediate requirements in other fields have been met, it is expected that this dormitory fund campaign can be more actively advanced.

Dr. Edsall gave a very clear explanation of the changes taking place in medical education and the plans under way which will keep the Harvard School in the front rank of institutions devoted to medicine and the allied sciences. He especially explained the coördinate relations of the Dental School and the School of Public Health to the School particularly engaged in teaching clinical medicine.

He reported that a considerable number of men are enrolled at the School under scholarships and fellowships sent by other organizations, thereby demonstrating an appreciation of the fact that medical education had become disorganized in some of the older countries and that this country is meeting the needs of those who are ambitious to engage in advanced study.

An especial plea for the dormitory was presented because the responsibility often felt for the welfare of the students has been demonstrated in several concrete instances where it was found that unsuitable living conditions had constituted serious handicaps.

Dr. Rackemann, on request by the President, gave a brief account of the meetings of the Associated Harvard Clubs and stated that the professional schools are receiving especial recognition in these gatherings.

Dr. Joslin introduced Dr. Zinsser and Dr. Blackfan, two recent acquisitions to the faculty. Dr. Zinsser spoke of the plans for making the Department of Bacteriology and Immunology of particular benefit to clinical medicine, and Dr. Blackfan spoke along the same central idea in the teaching of pediatrics.

Dr. Joslin, in his opening address and in introductions of the speakers, spoke of the desirability of enlisting the interest of the greatest possible number of the graduates, for the support of a large proportion of the alumni is of greater value than large contributions from a few.

He felt that the balance of the fund could be raised this year if the alumni would present the matter to their patients and friends. He brought out the ways in which appeals can be presented most effectively.

After the formal exercises a lunch was served and a social hour enjoyed by those in attendance.

The large number present and the definite interest shown in the School is most encouraging.

DR. WILLIAM D. HAGGARD

PRESIDENT ELECT OF THE AMERICAN MEDICAL ASSOCIATION

LAST year Dr. Haggard was strongly supported by his friends for the presidency of the Association and now that Dr. Pusey will retire at the end of the present A. M. A. year, in June, 1925, it was logical to elect the man for 1925 and 1926 who had so large a following.

Dr. Haggard is a native of Nashville, Tenn., where he was born September 28, 1872, a son of a doctor having the same given name. His medical education was acquired in the University of Tennessee from which he received the degree of M. D. in 1893. He has practiced in Nashville and is Professor of Surgery in the Vanderbilt University. He is a member of the American College of Surgeons, having served on the Board of Regents for several years.

He has served as President of the Tennessee State Medical Society and has also been honored by election as Secretary and also as President of the Southern Surgical Society. His father had also been President of this last named Society.

He has served as Chairman of the Surgical Section of the A. M. A. and for ten years was a member of the Council on Medical Education.

He was on duty in Washington during the war, on the Advisory Board in the Division of Surgery. He was advanced to the rank of Lieutenant Colonel in the Medical Corps, acting as Surgeon to Evacuation Hospital No. 1, at Toul, France, and consultant in surgery at the Mesves Hospital Center.

He brings to the office recognized ability as an adviser, organizer and surgeon and is regarded as a representative of the best type of practitioner.

AN INTERNATIONAL SCIENTIFIC LANGUAGE

DR. HERMAN FINDLAY of Glasgow, when in Boston recently, expressed the thought that Science needs an international language. It is interesting to note that Roland G. Kent of the University of Pennsylvania, in a recent number of "Science" puts forth the same idea, and that Latin is the choice of both.

The world still struggles through the linguistic

confusion that originated, we have been told by the ancient Hebrew writers, at the tower of Babel. Modern scientists must still exchange ideas, laboriously, through the medium of written English, French, Italian, German—in fact, the scientific production of each country is published in the language of that country, and the difficulties of gaining access to the rapidly accumulating store of knowledge are great.

Latin has many points in its favor. It is in large part the origin of most of our modern mother-tongues. It is still, although, *eheu*, to an ever decreasing degree, universally taught. It is the language of learning—the basis of linguistic education; it was, in fact, the universal language of Science until the Germans, industriously working and voluminously writing, resorted to their own tongue for scientific expression and forced the rest of the world to learn German or go without.

Efficiency demands a greater degree of perfection in the interchange of ideas that are of value to the world. This efficiency cannot be attained until the dwellers in the tower come to a gentlemen's agreement on the choice of a common method of communication. The voice of the Romans has long been heard; let it be heard again. In all seriousness there is much in favor of the rehabilitation of Latin as the language of the learned.

THE MENACE OF THE MENTALLY DEFECTIVE

In the most excellent *Monthly Bulletin* of the Massachusetts Society for Mental Hygiene for May, 1924, a short article is published under the title of "Majority of Defectives Well Behaved."

We are inclined to feel that undue optimism is expressed by the author, for after reporting that we have, according to Dr. Walter E. Fernald, 60,000 feeble-minded people in Massachusetts only 8 per cent of whom are a real menace, the belief is expressed that only this 8 per cent should receive institutional treatment.

This reasoning is perhaps open to argument for in another place it is stated that of 415 feeble-minded persons in Massachusetts not in institutions studied by the New York State Commission for Mental Defectives, 26 per cent were harmless. What about the other 66 per cent? Because they show possibilities of some usefulness can they be classified as safe? It is quite possible that a classification of this sort may be misleading, for it has never, we believe, been possible to determine the behavior of a mental defective under the stress of contact with new impulses or temptations. Because a youth with impaired or defective mind has not demonstrated dangerous tendencies is probably no guarantee of continued safe behavior. The boy who commits arson or murder in many instances has been regarded as reasonably reliable up to the time of the overt act. Otherwise he would in all probability have been under control. Recent murders in different localities demonstrate the possibility of dangerous tendencies in hitherto unsuspected youths.

So far as adults are concerned, most murders by hitherto unsuspected defectives are the result of some motive developed through jealously, cupidity, revenge or sudden passion. The youthful murderer is of another type and may be actuated by an impulse no more complex than curiosity or a spirit of adventure developed through suggestion.

As has been advocated many times, the greatest possible safety of society will not be secured until more children are subjected to expert study. We might in reason proceed beyond self-interest and argue that the duty of society to the child has not been met until every control and influence has been brought to bear that would give greater assurance of usefulness and happiness to the future adult. If the state should in the future deal with the psychology of the immature mind in more complete fashion, the future generations would regard the present lack of method as indicative of low-grade understanding. Some editorial writers seem to take comfort in the low percentage of the more serious crimes as compared with the behavior observed in the great mass of humanity. That is scant comfort to the bereaved friends of a victim or to the person who has been injured or suffered loss of property.

The scheme of government is to provide for the safety of the individual, as well as communities, and not be complacent because of small percentages of disaster.

Others apparently feel that the development of the child should not be surrounded by over much control, and details left to parents. This is desirable with the competent parents but statistics show marked tendencies to criminal behavior in certain human strains.

Perhaps more definite concern about the doubtful strata of society might prevent disasters and in the end be true economy for the mentally defectives cause untold misery and impose a tremendous burden on society.

CONVICTION OF DR. ROBERT ADCOX

The St. Louis Star under date of June 18, 1924, has published an account of the prosecution and conviction by a jury of Dr. Robert Adcox.

The charge was bribery in that it was alleged that B. H. Jolly, Superintendent of Schools of St. Charles County, Missouri, was paid $35 on April 27, 1923, for a certificate setting forth that a prospective medical student had passed an examination equivalent to a high school finishing test.

Adcox was referred to in connection with the

diploma mill exposé which was carried through by the *St. Louis Star* last year.

The attorney for Adcox argued for acquittal on the ground that it would be inhuman to send a gray haired old man away from his family to a penitentiary—the usual appeal to a jury.

The state's attorney asked the jury to remember that behind this old man were spectors of sickness and death which his traffic in illegal diplomas had let loose upon the world.

The verdict was appealed.

Indicted with Adcox are Helmuth P. Haller of the Oriental University, Dr. Ralph A. Voight, Kansas City, and Dr. Sam Kaplan of St. Louis. The last named had departed to parts unknown.

Many licenses of Connecticut doctors were revoked following the publicity of the issuing of illegal diplomas.

Therapeutic Column

The Present Status of Arsenicals in the Treatment of Syphilis

BY C. MORTON SMITH, M. D.

ARSPHENAMINE ("606") is still the most efficient preparation. Nothing has been produced that will cause lesions of primary, secondary or tertiary syphilis to disappear more promptly. Therefore, from a public health standpoint, it is the most important remedy in the control of contagious syphilis. Three intravenous injections of (one decigram for each 40 lbs. body weight) in sound individuals should heal or sterilize active lesions, allowing the patient to resume family and community life with slight danger of contagion if treatment is continued, and carried, if possible, to a symptomatic and serologic cure. The earlier the treatment is begun, the better the prognosis is for complete recovery.

In late syphilis the individual, not the community, is threatened. Arsphenamine is also of value here in arresting the progress of the disease in organs or tisues essential to life. Wisely used, arsphenamine may be given with benefit in cases of severe syphilitic disease of heart, liver, great vessels and central nervous system. This means small injections (0.1 gm. to 0.3 gm.) carefully given, not too frequently repeated, and preceded and followed by mercury and iodide of potash.

Arsphenamines are of value also in congenital syphilis; they should be given with care to the pregnant syphilitic as early as possible, and to the off-spring either intravenously or intramuscularly. In pregnancy renal conditions and blood pressure should be closely watched.

Arsphenamine has not fulfilled all the early claims made for it. However, it would still be a valuable addition to our therapeutics if it were used only in treating chronic scaly and fissured syphilitic papules of the palms and soles. These lesions, most resistant to all other medication, respond to the arsphenamines.

In tabes and paresis, arsphenamine is our chief hope of arresting the progress of the invasion. In addition to its intravenous use the administration of arsphenaminized serum by the Swift-Ellis method is of decided value.

It is less harmful to the kidneys than mercury and should take precedence both in renal disease with syphilis and syphilitic renal disease. Conditions are reversed regarding damage to liver cells; mercury is lesss toxic than arsphenamine.

One seldom relies on arsphenamine alone in treating syphilis. Mercury still holds its place for the "long haul." None of the other arsenicals in use today equal arsphenamine in efficiency. None have as high an arsenic content However, the greater ease of preparation, lower toxicity, less frequent reactions, safety in concentrated solutions, (a definite advantage in children and patients with small veins or hypertension) increased safety in heart and kidney disease, less likelihood of nitritoid crisis and other reactions, are some of the reasons why many prefer the newer preparations and make up for the lower efficiency by increasing the number of doses.

Next to arsphenamine, neo-arsphenamine is most frequently employed. Its effect on lesions is about the same as arsphenamine, but it is not as effective in reversing a positive blood Wasserman reaction.

Silver arsphenamine possesses few, if any, advantages, and there is a possibility of argyria.

Sodium-arsphenamine is no more effective than neo-arsphenamine, perhaps even less so. Its chief advantage is a lessened likelihood of reactions—nausea, vomiting, etc.

Sulpharsphenamine has not been used long enough to give it a therapeutic rating. It has been stated that, in experimental animals, spirochaetes resistant to arsphenamine respond to sulpharsphenamine.

It is said to be of especial value in cases of central nerve syphilis. Another advantage claimed is that it can be used intramuscularly or subcutaneously, as well as intravenously. All of our cases of intramuscular and some of subcutaneous injection have complained of pain and discomfort. However, it is used in children and infants intramuscularly with satisfaction and no untoward results. So far we have seen or known of very few reactions. Recently the manufacturers of diarsenol have put out neo and sulpharsphenamine in solution in ampules, ready for use, under the names "Neosol" and "Sulfosol." Each ampule must be used before the date stamped thereon. A very low toxicity and high therapeutic value is claimed for these products. So far we have seen no reaction following their injection.

Sulfosol is put up in high concentration for intramuscular, and more dilute, for intravenous use. These preparations are extremely conven-

ient for the busy physician who has infrequent occasion to use arsphenamine, as the only outfit needed is a sterile syringe and needle. For those who desire to use arsphenamine and escape the bother of preparation, neutralizing, etc., the Lowey Arsphenamine Solution put out by Squibb fulfills their requirement—provided the solution is used before the specified time.

None of the arsphenamines are "fool proof." Care and judgment must be exercised in using any and all of them as severe reactions may occasionally follow their administration. Nitritoid crisis, arsenical dermatitis and other reactions may be as severe though less frequent after these newer preparations.

MISCELLANY

NEW ENGLAND PEDIATRIC SOCIETY—MAY 9, 1924

THE meeting of the New England Pediatric Society held on May 9, 1924, consisted in a symposium on the etiology and serum treatment of scarlet fever by Dr. A. R. Dochez of the Presbyterian Hospital, New York, and Dr. Francis G. Blake of the Yale Medical School. Dr. Dochez spoke first on the subject: "Observations on the Etiology of Scarlet Fever." During the course of his talk he summarized previous work that had been done in an attempt to discover the cause of the disease, particularly that of Marmorek and that of Moser, both of whom were convinced that a streptococcus was the causative organism, although their views had not been generally accepted. He then went on to describe the various steps of his own work, all pointing towards a hemolytic streptococcus as the etiological factor, and culminating in his successful efforts to immunize animals and produce an immune serum.

Dr. Blake's paper is presented in this number of the JOURNAL.

A DISTINGUISHED VISITOR

DR. LEONARD FINDLAY, head of the Children's Department of the University of Glasgow, Scotland, has recently completed a visit to this country, terminating his stay in Boston. Dr. Findlay, who is an honorary member of the American Pediatric Society, attended the meetings of that body in Pittsfield in June, although he came primarily as the invited guest of the Pediatric Section of the American Medical Association, on the Jacobs Fund.

Dr. Findlay received his early training in Glasgow and engaged in general practice for a number of years, after which he worked with Heinrich Finkelstein on the continent, entering the field of Pediatrics on his return to Glasgow. Following the war he spent six months in Geneva in charge of the Child Welfare Section of the League of Red Cross Societies.

On the occasion of his visit to Boston, Dr. Findlay was tendered a dinner by members of the Pediatrics Department of the Harvard Medical School.

A SUMMARY OF THE FACTS DISCOVERED IN A STUDY OF ABSENTEEISM IN CERTAIN SCHOOLS IN CLEVELAND AS FOUND IN THE PUBLIC HEALTH REPORTS, VOL. 39, NO. 23

THE results obtained for the group studied by use of the methods described in this report may be summarized as follows:

1. Negro children had a lower general morbidity rate and lower specific morbidity rates for most causes of sickness than the white children.

2. The average duration of cases of sickness measured by days of school lost was approximately the same for both white and negro children (6.18 ± 0.15 school days for white children and 5.98 ± 0.22 for negro children).

3. The percentage of cases known to be attended by a regular physician was greater among the white than among the negro children.

4. As between boys and girls, there was no significant difference in the average duration of cases of sickness, but girls experienced a slightly higher general morbidity rate than boys.

5. The older group (10—14) experienced not only a much lower general morbidity rate than was true for the younger age group (5—9), but also a significantly shorter average duration per case.

6. Respiratory infections and measles were the two most important causes of absence from school due to sickness.

7. Scarlet fever caused longer absences than any other disease, and was more often attended by a regular physician. In these respects it was followed, in the order named, by measles, chicken pox, diseases of the tonsils, and diseases of the digestive system.

EYE SIGHT IN INDUSTRY

INDUSTRY is neglecting the eyes of the workers, called a leading factor in national production, it is asserted by the Eye Sight Conservation Council of America, which bases its conclusions upon a survey embracing 170 companies located in twenty-three states and employing more than 1,000,000 men and women.

Summarizing the results of eye tests of a group of more than 200,000 employees, said to be the largest yet studied in the field of eye conservation, the Council reports that the average proportion of defective vision is 44.3 per cent.

These disclosures, it was stated, "establish an accurate incidence of the proportion of defective vision among the 42,000,000 gainfully employed persons in the United States."

Comparing the findings of the survey with those of the Hoover Waste Committee of the American Engineering Council, which revealed that out of more than 10,000 employees sixty-six per cent had defective eyes, the Eye Sight Conservation Council found that in one group of more than 12,000 the average of defective vision was seventy-two per cent. The Hoover conclusions are held to be "very conservative."

The Eye Sight Conservation Council in a recent report concludes that existing conditions place an extra burden upon industry and that production is retarded.

"Eye sight, as an important factor effecting the output of the industries of the United States, is being overlooked. Comparatively few industrial and commercial establishments are giving any attention to the care of the eyes of their employees.

"Those companies that recognize their responsibility in this regard not only realize inestimable benefits but are likewise contributing tremendously to the physical upbuilding of society. Such remedial measures as the correction of visual defects, safety campaigns for the protection of the eyes from hazards and accidents and improvements in lighting conditions are results which no company can afford to overlook.

"Production is increased, the quality of workmanship is improved, less material is wasted, fewer accidents occur, greater individual effort is made possible and above all there result greater physical comfort and contentment."

ANNUAL MEETING OF THE NEW HAMPSHIRE MEDICAL SOCIETY

THE one hundred and thirty-third annual meeting of the New Hampshire Medical Society was held in the Practical Arts High School, Manchester, New Hampshire, on Tuesday and Wednesday, June 24th and 25th, 1924, under the presidency of Dr. Howard N. Kingsford of Hanover. The Practical Arts High School is a beautiful new building well adapted for the commercial exhibit in the hall in front of the auditorium, and the auditorium was provided with every facility necessary for lantern demonstrations and afforded an excellent meeting place. A new feature of this meeting were the dry clinics which were held during the forenoons of June 24th and 25th. The program of the clinics follows:

TUESDAY, JUNE 24TH

9:45 A.M. Pulmonary Tuberculosis. Robt. B. Kerr
10:00 A.M. The Results of Spinal Bone Grafts. Ezra Z. Jones
10:20 A.M. Diabetes. C. O. Coburn
10:40 A.M. Pneumonia. Damase Caron
Influence of Pituitrin in Modern Obstetrics. E. D. Miville
11:00 A.M. Thyroids. D. W. Parker
Thyroid Hearts. Frederick Scribner
11:20 A.M. Lateral Sinus Thrombosis. D. C. Norton
Non-Malignant Dermatoses. J. S. Bragg
11:40 A.M. Health Picture. (Film.) H. A. Streeter

WEDNESDAY, JUNE 25TH

9:00 A.M. Duodenal Ulcer. W. A. Thompson
Medical Aspect of Duodenal Ulcer. J. J. Powers
9:20 A.M. Epilepsy of Young Children. R. N. Rogers
Hemorrhagic Diseases of the New Born. B. P. Burpee
9:40 A.M. Blood Transfusion. J. F. Holmes
Caesarian Section. G. S. Foster
10:00 A.M. Radium in Malignancy. G. C. Wilkins
X-Ray in Malignancy. A. G. Straw
10:20 A.M. Diagnosis of Kidney Lesions. E. J. Brown
Diverticulitis. G. V. Fiske
10:40 A.M. Pulmonary Syphilis. H. W. N. Bennett
Syphilitic Aortitis. C. A. Weaver
Neuro-Syphilis. E. O. Crossman
11:10 A.M. Types of Hypertrophied Prostates. John H. Gleason.

Notable among the cases presented was an excellent exhibition of the different varieties of tumors of the thyroid by Dr. David W. Parker. Cases were shown illustrating many forms of this disease and several patients who have been successfully operated upon for advanced exophthalmic disease were among the number. In regard to the use of Lugol's solution, Dr. Parker said he had found it of the greatest value in preparing patients for operation, that it produced a remarkable fall in the metabolism, but that if the patients were sent away after this treatment without operation, the metabolism would again increase. He regarded the Lugol's treatment as palliative but not curative, of great value in preparing for operation, but by no means to be depended on alone.

Dr. D. C. Norton reported some remarkable cases of recovery from lateral sinus thrombosis, and made a plea for early operation in these cases.

On Wednesday, Dr. J. F. Holmes demonstrated a case in which repeated blood transfusions had been necessary in hemorrhagic diseases of the new-born, and gave an excellent discussion of the general subject of transfusion.

Dr. G. C. Wilkins presented in a conservative and judicious manner the subject of radium in malignancy.

Dr. Brown's paper on the diagnosis of kidney lesions demonstrated the value of skiagraphy of

the injected pelvis in the diagnosis of malignant disease of the kidney and in diverticulitis of the bladder.

Dr. G. V. Fiske presented a case of operation for acute diverticulitis in which a fragment of a tooth pick was found in the diverticulum.

The symposium on syphilis, in which Drs. Bennett, Weaver and Crossman took part, was of interest.

Dr. John H. Gleason demonstrated with a series of lantern slides the different types of hypertrophied prostates.

Program, Tuesday afternoon session:

Invocation—Rev. John Milton Phillips, Manchester.

Presentation of Program—George V. Fiske, Manchester; Chairman Committee on Arrangements.

President's Address—Howard N. Kingsford, Hanover.

Modern Aspects of Mental Defect and Disease—Benjamin W. Baker, Laconia.

Discussion—Ernest L. Bell, Plymouth; A. W. Mitchell, Epping.

The Evolution of Juvenile Tuberculosis—Henry D. Chadwick, Westfield, Mass.

Discussion—R. B. Kerr, Manchester; Marion L. Bugbee, Concord.

Clinical Observations of Gastric and Duodenal Ulcer—B. G. Moran, Nashua.

Discussion—Herbert L. Smith, Nashua; John F. Holmes, Manchester.

Syphilis of the Breast—H. W. N. Bennett, Manchester.

Discussion—James W. Jameson, Concord; David W. Parker, Manchester.

The paper on Modern Aspects of Mental Defect and Disease by Dr. Benjamin W. Baker was of interest as showing the fact that certain mental defectives by education can be made able to support themselves in the life of the community of a certain grade. It was based on the results attained at the New Hampshire School for Feebleminded at Laconia.

The program of Wednesday follows:

The Social and Economic Situation of Physicians. William A. Pusey, Chicago, President American Medical Association.

Albuminuric Retinitis—Louis W. Flanders, Dover.

Discussion—John A. Hunter, Dover; Charles F. Nutter, Nashua.

Intussusception in Adults—Raymond P. Sullivan, New York City.

Discussion—George S. Foster, Manchester; Herbert L. Taylor, Portsmouth.

In the Matter of Physical Examination—Fred E. Clow, Wolfeboro.

Discussion—Gilbert D. Frost, Hanover; Park R. Hoyt, Laconia.

The Laboratory Problem—Osmond H. Hubbard, Keene.

Discussion—Howard N. Kingsford, Hanover; W. H. Lacey, Keene.

Report of House of Delegates.

Report of Trustees.

Installation of Officers.

Every provision was made for the pleasure of the ladies attending the meeting by the main committee, and Tuesday evening there was a reception and dinner at the Manchester Country Club, which was a delightful occasion. The annual banquet was held at the Carpenter Hotel on Wednesday evening. The meeting as a whole was a credit both to the organizers of the meeting and to the local committee of arrangements. The House of Delegates decided to hold the next meeting in Concord, in May, 1925.

F. B. Lund, M. D.,
Visiting Delegate Representing The Massachusetts Medical Society.

MAGAZINE FOR BLIND CHILDREN

"The School Magazine," a Braille magazine for blind children, has been established in England, reported to be the first of its kind. It contains essays, poetry, humor, and a competition page.—*Children's Bureau, U. S. Dept. Labor.*

THE NEW HAMPSHIRE HEALTH INSTITUTE

The health agencies of New Hampshire are engaged in conducting a health institute extending from June 30 through July 12 of this year in Durham.

Beginning with the problems of administration all the activities of public health bodies will receive attention.

There are fourteen sections under the following designations:

Health Administration—Charles Duncan, M. D., Executive Secretary, State Board of Health, Concord.

Preventable Diseases—Howard Streeter, M. D., Health Officer, Manchester.

Tuberculosis—Robert B. Kerr, M. D., Executive Secretary, New Hampshire Tuberculosis Association, Manchester.

Venereal Diseases—Charles A. Weaver, M. D., Director, Division Venereal Disease Control, State Board of Health, Concord.

General Diseases—George C. Wilkins, M. D., Manchester.

Child Hygiene—Elena M. Crough, R. N., State Supervising Nurse, Director, Division Maternity, Infancy and Child Hygiene, State Board of Health, Concord.

School Health Program—Elizabeth M. Murphy, R. N., Supervisor of School Health, State Board of Education, Concord.

Rural Public Health Nursing—Lyda K. King, Supervising Nurse for New Hampshire, New England Division, The American Red Cross, Boston.

Mental Hygiene—Charles H. Dolloff, M. D., Superintendent, New Hampshire State Hospital, Concord.

Problems of the Feeble Minded—Benjamin W. Baker, M. D., Superintendent, New Hampshire School for Feeble Minded, Laconia.

Nutrition—Daisy Deane Williamson, State Home Demonstration Leader, New Hampshire University, Durham.

Aids to a Public Health Program—Fred E. Clow, M. D., Wolfeboro.

Industrial Hygiene—David W. Parker, M. D., Manchester.

Coöperating Health Agencies—William J. Ahern, Secretary State Board Charities and Correction, Concord.

The Faculty is made up of eminent specialists and the addresses and discussions will cover all of the subjects affecting the prevention of disease beginning with pregnancy and extending through the life of the human being.

The program is most carefully arranged and New Hampshire will derive great benefit from the instruction given.

RELIEF TO VETERANS OF THE WORLD WAR

THE liberalizing features of the World War Veterans Act, 1924, more commonly known as the Reed-Johnson Act, approved by the President on the last day of the recent session of Congress, are bringing relief to thousands of veterans of the late war, according to a statement made today by General Frank T. Hines, director of the U. S. Veterans Bureau.

"We are putting the new provisions into effect as rapidly as practicable," said Director Hines. "When the full effects of the Act are felt, I believe the veterans will receive a full measure of desired aid from the U. S. Government."

The World War Veterans Act, 1924, is the result of a desire on the part of the officials of the U. S. Veterans Bureau, representatives of veteran organizations, and of the Congress itself, to remove the flaws that have appeared in the previous veteran relief Acts, to enlarge upon the relief functions of the Bureau, and to codify the laws affecting veterans of the late war.

There is probably no feature of the Act more outstanding than that which provides hospitalization in Government hospitals and necessary traveling expenses in the case of any veteran of any war or expedition since 1897, who has not been honorably discharged from the service, and who is in need of hospitalization, without regard to the nature or origin of his disabilities. Preference, however, will be given to those veterans who are financially unable to pay for hospitalization and necessary traveling expenses. This provision is one that will appeal to every world war veteran as an example of the gratitude the nation feels towards its soldiers.

Those veterans suffering from active tuberculosis will be especially interested in the feature of the Act which provides that where this disease appears before January 1, 1925, developing a 10% degree of disability, it shall be conclusively presumed that it is of service connection. Such disabilities as neuro-psychiatric disease, paralysis agitans, encephalitis lethargica, and amoebic dysentery, developing a 10% degree of disability before January 1, 1925, have been given a rebuttable presumption of service connection. It is estimated that these provisions will provide compensation and hospitalization to many veterans who before the passage of the Act had been unable to connect their disabilities with service.

The new Act gives to the Director the right to delegate to the sub-district offices certain powers which were previously restricted to the central office and the regional offices with the object of making awards of vocational training and of compensation and ratings of disability as quickly and conveniently as possible and at the place where the examinations are made.

For those entitled to vocational training, an important feature of the new Act is that providing that the test of rehabilitation is to be employability and that the trainee is entitled to maintenance and support allowance for two months after this condition has been reached. No course in vocational training will be commenced after June 30, 1925; nor incompleted training extended after June 30, 1926.

Several new insurance features have been provided. Under the provision preventing lapsation of insurance where the veteran is entitled to uncollected compensation and becomes permanently and totally disabled or dies, insurance may be paid in the amount that the uncollected compensation would purchase.

All term insurance shall cease on July 2, 1926, except where death or total permanent disability shall have occurred before July 2, 1926. Where term insurance has matured by reason of total and permanent disability, and such total and permanent disability has ceased, the insured, while required to renew payments on term insurance, will have two years from the date he is required to renew payments of premium, in which to convert the term insurance, even though this might extend beyond the period in which term insurance would otherwise have to be converted.

The benefits of the new Act are limited to those who suffer from disability or injury that can be connected with service between the declaration of war, April 6, 1917, and the peace resolution of July 2, 1921.

The former requirement that the disease or injury must have been incurred "in line of duty" has been stricken out; but the requirement that such disease or injury be not the result of wilful misconduct has been retained.

Members of the National Guard, called into

Federal service, who became disabled or who died before being accepted and enrolled for active service, are placed in the same status as men inducted by local draft boards.

Payments to dependents of deceased veterans have been increased as follows:

If thre is a widow but no child, from $25 to $30 a month.

If there is a widow and one child, from $35 to $40 a month, with $6 a month for each additional child. This is an increase of $1 a month per child, with no limitation on the number.

If there is no widow but three children, $40 a month with $5 a month for each additional child.

The payment of compensation to a parent on account of the death of a child is to continue until the death of the parent.

A provision is included in the Act whereby any veteran having tuberculosis of a compensable degree, who has been hospitalized for a year, whose disease has, in the discretion of the Director of the Veterans Bureau, been completely arrested, and who is discharged from further hospitalization, will be rated temporarily and totally disabled and such rating shall not be decreased within a period of six months.

Any veteran having tuberculosis of a compensable degree, who has been hospitalized for a year, whose disease, in the judgment of the Director of the U. S. Veterans Bureau cannot be arrested by further hospitalization; whose discharge from hospitalization will not hurt himself or family, and who in the judgment of the Director is not feasible for vocational training, shall upon his request be discharged from hospitalization and rated temporarily and totally disabled for a period of at least three years.

The loss of the use of limbs is now to be considered equivalent to the loss of the limbs, for the purpose of rating the disability. There is a provision that the loss of the hearing of both ears is a condition of permanent total disability. Compensation for the loss of the use of both eyes is increased to $150 a month, and for the loss of the use of both eyes and one or more limbs, to $200 a month.

Injuries or death resulting from hospitalization or from vocational training, unless due to misconduct on the part of the veteran, are made compensable in the same manner as though occurring during service.

A veteran so helpless as to need a nurse or attendant is allowed $50 a month for that purpose.

After June 30, 1927, veterans not totally and permanently disabled and who are being maintained by the Bureau in a hospital, and who are without wife, child, or dependent parent, will not receive more than $40 a month while remaining in hospital. Where a disabled person, having neither wife, child, nor dependent parent, shall have been maintained after July 1, 1924, in a hospital for mental diseases and shall be deemed by the Director of the Veterans Bureau to be permanently insane, compensation for such person shall be $20 a month thereafter as long as he shall be in such hospital. During this period the compensation may be paid to the chief officer of the hospital for the benefit of the patient. If the patient shall recover and be discharged as cured, an additional $60 a month shall be paid him for the period his compensation was previously reduced.

If a veteran is found who is retarding his recovery by gross dissipation, the Bureau may deposit up to three-fourths of his compensation with the Treasurer of the United States to be given to the patient upon his discharge from the hospital.

The Director is given power to suspend payments to guardians who fail to render accounts showing that they have made proper application of payments for the benefit of their wards.

Unless it can be shown that the beneficiary practiced fraud, no reduction or discontinuance of compensation will go into effect until three months after it is determined upon; nor shall such reduction be made retroactive.

THE HEALTH BULLETIN OF THE BROOKLINE BOARD OF HEALTH

THE June issue of this publication presents a concise treatise on tuberculosis, a very instructive article on fly and mosquito suppression and a brief reference to some common indications of the presence of cancer. It can be read with profit. If doctors would get a few copies to be used at the psychological moment much good would result.

BOARD OF REGISTRATION IN MEDICINE—REPORT OF THE MAY EXAMINATION

PHYSICIANS REGISTERED JUNE 6, 1924

Clark, Orma Lawrence, Leonard Hospital, Troy, N. Y.—Middlesex, 1923.

Rabinovitz, George, Brockton Hospital, Brockton, Mass.—Middlesex, 1923.

Carmody, Belle Scott, 118 N Street, City Point, Boston, Mass.—Boston P. and S., 1923.

Masters, Harry Louis, 109 Washington Street, Chelsea, Mass.—St. Louis P. and S., 1923.

Seropian, Kegham, 33 Bigelow Avenue, East Watertown, Mass.—American Medical University, Beirouth, Syria, 1911.

Husisian, Levon, 58 Northampton Street, Boston, Mass.—American Medical Uaiversity, Beirouth, Syria, 1912.

Bulian, Moses, 49 Allen Street, Boston, Mass.—St. Wladimer Imperial, Russia, 1912.

Rutenburg, Morris, 31 Allen Street, Boston, Mass.—Imperial Moscow University, 1916.

Taylor, Grantley Walder, 32 Claflin Road, Brookline, Mass.—Harvard, 1922.

Dunphy, Edwin Blakeslee, 308 Prince Street, West Newton, Mass.—Harvard, 1922.

Bolen, Henry Leonard, 340 East Fifty-eighth Street, Chicago, Ill.—Loyola University, 1918.

Kleiman, Shmaria, 17 Champlain Avenue, Lawrence, Mass.—Donskoi (formerly of Warsaw), 1920.

Walker, William Gordon, 706 Huntington Avenue, Boston, Mass.—University of Iowa, 1919.

Herman, William, 3 Brimmer Street, Boston, Mass.—Harvard, 1920.

Dechter, Max Archibald, National Military Hospital, Kansas—Tufts, 1923.

Sprague, Howard Burnham, 130 Longwood Avenue, Brookline, Mass.—Harvard, 1922.

Gaebler, William Charles, Westboro, Mass. (Box 288)—New York Homeopathic Medical College, 1920.

Pidgeon, Ira Sanborn, Beverly Hospital, Beverly, Mass.—Dalhousie University, Halifax, N. S., 1923.

Delaney, William Joseph, 37 Lincoln Street, Marlboro, Mass.—Boston P. and S., 1921.

Surrey, Sarah H., 974 Center Street, Middleboro, Mass.—Philadelphia Osteopathic, 1923.

Caner, George Colket, Manchester, Mass.—Harvard, 1922.

Merrill, Frederick Guy, Jr., 94 Lynnway, Point of Pines, Revere, Mass.—Tufts, 1923.

Thiery, Raymond Donlé, Massachusetts General Hospital, Boston, Mass.—Harvard, 1923.

Kelly, George Gave, Bellows Falls, Vt.—Hahnemann Medical College, Chicago, Ill., 1908.

Gaboury, George Napoleon, 105 Woodlawn Street, Springfield, Mass.—Harvard, 1910.

REJECTED

St. Louis P. and S., 1921.
Middlesex, 1923.
St. Louis P. and S., 1923.
St. Louis P. and S., 1923.
Athens University, 1922.
St. Louis P. and S., 1923.
Middlesex, 1922.
Middlesex, 1923.

When the record of the March examination was reported two were on the table for further consideration and have not been registered.

On April 9:

Hekinyan, Kosrov Harotyun, 99 Commonwealth Avenue, Boston, Mass.—American School of Medicine, Beirouth, 1899.

On June 6:

Persira, Manuel José, 136 Earl Street, New Bedford, Mass.—University of Oporto, Portugal, 1903.

CONNECTICUT WEEKLY MORBIDITY REPORT

WEEK ENDING JUNE 21, 1924

(Including all cases reported before 11 A. M., Monday, June 23, 1924)

Diphtheria

Fairfield County	
Bridgeport	6
Hartford County	
Berlin	1
Bristol	1
Enfield	1
Hartford	5
New Britain	2
New Haven County	
Waterbury	4
New London County	
Norwich (C)	2
Preston	1
Windham County	
Killingly	1
State total	24
Last week	18

No carriers reported this week.

Whooping Cough

Fairfield County	
Fairfield	3
Greenwich	2
Stamford (C)	1
New Haven County	
Branford	1
Meriden (C)	1
New Haven	3
Waterbury	2
State total	13
Last week	20

Smallpox

Windham County	
Brooklyn	1
Danielson	2
Killingly	6
State total	9
Last week	1

Scarlet Fever

Fairfield County	
Bridgeport	14
Greenwich	1
Stamford (C)	3
Hartford County	
Berlin	1
Bristol	1
Enfield	1
Hartford	8
Manchester	7
New Britain	9
West Hartford	1
Litchfield County	
Litchfield	3
Plymouth	1
New Haven County	
East Haven	1
Madison	1
Meriden (C)	1
New Haven	3
Wallingford (B)	2
Waterbury	5
New London County	
Jewett City	1
Groton (T)	1
New London	1
Norwich (C)	1
Norwich (T)	3
Stonington	3
State total	73
Last week	106

Measles

Fairfield County	
Bethel	4
Bridgeport	1
New Canaan	1
Stamford (C)	4
Stamford (T)	3
Hartford County	
Farmington	13
Hartford	11
Manchester	5
New Britain	5
West Hartford	2
Litchfield County	
Canaan	15
North Canaan	3
New Haven County	
Guilford	1
Hamden	2
Milford	11
New Haven	14
North Haven	1
Oxford	2
Seymour	1
West Haven	5
Tolland County	
Hebron	3
Windham County	
Putnam (C)	1
Putnam (T)	1
Thompson	1
State total	110
Last week	132

Typhoid Fever

Fairfield County	
Bridgeport	1
Hartford County	
Hartford	2
New Haven County	
Milford	1
New Haven	1
Windham County	
Pomfret	1
State total	6
Last week	1

Other Communicable Diseases

Cerebrospinal Men.	1
Chickenpox	44
Encephalitis Epid.	1
German measles	6
Influenza	2
Mumps	45
Para-typhoid fever	1
Pneumonia (lobar)	15
Poliomyelitis	1
Trichinosis	1
Tuberculosis (pul.)	31
" (other forms)	11
Gonorrhoea	26
Syphilis	36

STATE OF CONNECTICUT WEEKLY MORBIDITY REPORT

WEEK ENDING JUNE 28, 1924

(Including all cases reported before 11 A. M. Monday, June 30, 1924)

Diphtheria

Fairfield County	
Bridgeport	4
Fairfield	1
Stamford (T)	1
Hartford County	
Berlin	1
Bristol	2
Hartford	9
Manchester	1
New Britain	2
West Hartford	1
Windsor	1
New Haven County	
Derby	1
Meriden (C)	1
New Haven	1
Waterbury	3
West Haven	1
State total	30
Last week	24

The following diphtheria bacilli carriers were reported:

New Haven	5

Whooping Cough

Fairfield County	
Bridgeport	3
Greenwich	1
Stamford (C)	1
Stamford (T)	2
Hartford County	
Manchester	3
Windsor	1

Litchfield County	
Salisbury	2
New Haven County	
Ansonia	1
Meriden (C)	2
Waterbury	1
New London County	
Preston	1
State Total	18
Last week	13

Scarlet Fever

Fairfield County	
Bridgeport	16
Danbury (C)	1
Stamford (C)	1
Stratford	1
Hartford County	
Berlin	1
East Hartford	2
Hartford	1
Manchester	2
New Britain	3
Plainville	1
New Haven County	
Ansonia	1
New Haven	6
Waterbury	3
West Haven	1
New London County	
Groton (B)	1
Groton (T)	6
Norwich (C)	2
Salem	1
Windham County	
Willimantic	3
State total	53
Last week	73

Measles

Fairfield County	
Darien	1
Ridgefield	1
Sherman	1
Stamford (C)	4
Stamford (T)	5
Hartford County	
Bristol	1
East Hartford	1
Hartford	18
Manchester	6
Southington	1
Suffield	15
Windsor	5
Litchfield County	
Canaan	2
Salisbury	2
Washington	2
Middlesex County	
East Hampton	1
New Haven County	
Milford	13
New Haven	9
North Haven	1
Waterbury	2
West Haven	1
New London County	
Colchester	2
Groton (B)	6
New London	2
Norwich (C)	1
Tolland County	
Hebron	12
Windham County	
Putnam (C)	14
Windham	3
State total	132
Last week	110

Typhoid Fever

Fairfield County	
Bridgeport	1
Greenwich	1
New Haven County	
New Haven	1
Waterbury	1
New London County	
Groton (T)	1
Windham County	
Pomfret	1
State total	6
Last week	6

Other Communicable Diseases

Cerebrospinal men.	1
Chickenpox	56
Encephalitis epid.	1
German measles	7
Influenza	1
Mumps	38
Pneumonia (lobar)	13
Poliomyelitis	1
Tetanus	1
Tuberculosis (pul.)	31
" (other forms)	6
Gonorrhoea	22
Syphilis	45

No cases smallpox reported this week.

DISEASES REPORTED TO MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

WEEK ENDING JUNE 28, 1924

Disease	*No. of Cases*
Actinomycosis	1
Anterior poliomyelitis	2
Chickenpox	101
Diphtheria	114
Dog-bite	8
Encephalitis lethargica	4
Epidemic cerebrospinal meningitis	7
German measles	36
Gonorrhea	82
Hookworm	2
Influenza	1
Malaria	1
Measles	350
Mumps	150
Ophthalmia neonatorum	20
Pneumonia, lobar	47
Scarlet fever	185
Septic sore throat	1
Smallpox	1
Syphilis	27
Suppurative conjunctivitis	12
Trachoma	5
Tuberculosis, pulmonary	122
Tuberculosis, other forms	39
Typhoid fever	8
Whooping cough	50

CORRESPONDENCE

VIENNA LETTER

Vienna, June 12, 1924.

TRAINING OF THE YOUNG

A popular lecture was held recently by the school doctors of Vienna on the training of the young. The lecturers made a conscientious and not unsuccessful attempt to show the folly of allowing the young to pick up their notions of sexual relations and results as best they may,—or to say as worst as they may—instead of having the knowledge imparted to them by parents and guardians in such a way as to imbue them at the same time with a proper perception of the solemnity of the subject. The silence of parents on this momentous subject savors of cowardice. Anxious as they must be to keep their children free from impurity and to place them on their guard against temptation, they nevertheless allow a mistaken delicacy to close their mouths. As the lecturers pointed out, the subject is one as to which young people are intensely and legitimately curious. Sexual relations occupy too large a share of the world's doings for it to be possible to hide them from the scrutiny of their young minds, said one of the lecturers, and it is folly to imitate the ostrich and to imagine that because questions are answered evasively or sternly repressed the budding curiosity will be stifled. Moreover, it is not only desirable but absolutely necessary that information should be furnished on these points. The mariner cannot be expected to steer clear of a submerged rock, they said, which is not indicated on his chart, and many of the vices of the young are due to sheer ignorance, and not to any innate love of what is impure and degrading.

SCHOOL BOARD AND INFECTIOUS DISEASES

The question of the spread of infectious diseases by Board School children has recently been under discussion in Vienna, and there can be no doubt that, notwithstanding the decision arrived at, daily preventive visitation of schools would be most beneficial. It is quite certain that schools do spread both infectious and parasitical diseases, was the opinion asserted by most discussers, and the solution to the difficulty, which has long been found and practised in the schools of the wealthier classes, could well be applied to the Board Schools of Vienna and other cities of Austria. The early recognition of a disease and the isolation of the case will nip much trouble in the bud, and it is to be regretted that the Vienna School Board did not see its way to the appointment as an experiment of some medical men and nurses suggested. The discussers pointed out that in some towns on the Continent and in America medical visitation of schools has already been started, and if it were instituted in our large cities much of the pressure on the beds of our children's hospitals would be lessened.

A CASE OF MOMENTARY RESURRECTION

A curious case of raising from the dead has been communicated in a provincial medical paper. A young lady, 19 years of age, had been operated on for appendicitis. Four days after the operation she was seized with heart weakness ending in a syncope, and the surgeon who had performed the operation on her, having assured himself that the heart had ceased absolutely to beat, employed the means usual in such cases, artificial respiration, traction of the tongue, but without the slightest effect. Seeing that the case was hopeless, the surgeon slit up the third intercostal space, opened the pericardium, and, seizing the heart in both hands, he made rhythmical com-

pressions. In a short time the pulse began to beat, the dead woman opened her eyes, stirred her head, and recognized even the operator. But at the end of two minutes the pulse became weaker and ceased for the second time. The compressions and massage of the heart were renewed, with a temporary success. Several such attempts were successful, inasmuch as the pulse began to beat, while the fifth attempt failed completely. The autopsy revealed the cause of the failure. One of the coronary arteries was blocked by an embolus.

WHAT IS THE ACTION OF THE "SEA-CURE"?

Dr. Victor Dalmady, lecturer of hydrotherapeutics at the University of Budapest, comprises the action of sea-cure in two divisions, viz., the action of sea air, i. e., the purely climatic aspect; and, secondly, the action of sea baths. Now, the properties of sea air are summarized by Dr. Dalmady in his lecture as follows: The air at sea level attains its maximum density, and the barometric pressure is at its highest. Under these conditions the respiratory movements are reduced in number but increased in amplitude. It follows that the air circulates more freely in the respiratory tract, and the circulation of blood in the lungs takes place more easily. Moreover, a given volume of sea air contains a larger proportion of oxygen than inland or mountain air, and this determines an increase in the red corpuscles as well as an augmentation of the proportion of hemoglobin. Then, too, sea air is markedly freer from dust and consequently from aerial micro-organisms than land air—advantages upon which it is hardly necessary to insist. The prevailing temperature is more uniform, but, on the other hand, the winds are more frequent and stronger. Among their effects it must be noted that they promote evaporation from the cutaneous surface and cause a loss of surface heat that stimulates organic exchange.

Light, which is such an important factor in a climate, is at its maximum at the seashore, and it is richer in chemical and therapeutically active rays. It exerts a pronounced, stimulating action on metabolism and produces a beneficial action on the vasomotor system, which Alfred S. Gubb, of Mustafa Superior, Algiers, describes as "the peripheral heart, which, ramifying beneath the skin, regulates and governs the function of the central heart."

It is generally admitted that sea air contains a larger proportion of ozone, and, along with this, a larger proportion of aqueous vapor. In districts immediately adjacent to the seaboard the air, especially in rough weather, becomes laden with fine spray, containing the alkaline chlorides, bromides, and iodides, though, according to Lalesque, the proportions of these salts present in sea air has been much exaggerated. Gautier and Duphil, as a matter of fact, found only 22 and 15 thousandths of a milligram per litre of sea air.

It will be seen, then, that sea air is made up of elements which, for the most part, are stimulants. It stimulates metabolism, at any rate in the sick, and for a limited period—until they have become acclimatized—in the healthy. Clinically it increases the appetite and indirectly brings about an increase of body weight. The circulatory and respiratory functions are slowed, cutaneous perspiration and diuresis increase, the muscular strength is enhanced, and the proportion of red corpuscles in the blood is raised.

ALCOHOLISM AND INSANITY

Dr. Jacobovici, senior physician in a large insane asylum in Roumania, says in an article on the above subject that the relation of alcoholism to insanity is obviously one of the most important social problems that could be brought before the medical profession, especially in view of the steady increase of insanity in Roumania. From a study of the statistics of his own asylum he concludes that during the past twenty years there has been a steady increase in the number of cases of insanity due to alcoholism. That increase he found relatively greater among the rich than among the poor. Few who are acquainted with the inner life of the great cities will differ from Dr. Jacobovici in his conclusion that the city and industrial population are drinking far too much for their health, and if the present tendencies go on there is a bad lookout for the future of the people who are crowded into the cities. Wise and well-conducted legislation in the direction of national temperance is one of the most urgently needed of all political reforms, says the writer. Foreign wars and conquests may be necessary now and then, but the drink evil is ever within our walls, a burning and increasing danger, he finishes his article.

ADOLF ERDOS.

NEW SERVICE AT BOSTON SANATORIUM

June 25, 1924.

Editor, Boston Medical and Surgical Journal:

I enclose a copy of a notice sent to various hospitals. We should be pleased if notice in regard to the matter is made in the BOSTON MEDICAL AND SURGICAL JOURNAL.

While this notice does not say so, the change from what has happened before is that a special ward building is to be utilized for the treatment by heliotherapy, and this is to be done, in the beginning, only with children, in order that how the treatment is carried out may be learned by the Sanatorium, and it is hoped that when the budget for next year is written, money will be provided to make suitable alterations to extend this treatment to all ages. For some years past new cases of non-pulmonary tuberculosis have been admitted, but only such cases could be taken as did not require much surgical procedure, because the Sanatorium was not set up for such business.

The trustees have appointed an assistant resident medical officer, who has had surgical and orthopedic training, and who will be the resident in direct charge of such cases under the supervision of the staff. Dr. Locke is the chief of staff, and Dr. Ehrenfried is the orthopedic surgeon.

I am very much in hopes that this undertaking will prove successful, and the number treated considerably increased.

For some years now the wards of the hospital have not been filled and the number of vacant beds is often over 100, and it is hoped to utilize these beds more than heretofore for non-pulmonary cases.

Yours very truly,

JAMES J. MINOT, *Secretary.*

BOSTON SANATORIUM

The Boston Sanatorium will start at the Sanatorium, River Street, Mattapan, on July 15, 1924, a special service for *Bone, Joint and Glandular Tuberculosis* in children of both sexes from the ages of five to twelve. In the wards set apart for this purpose, there is room for ten boys and ten girls. Because of the limited number of patients who can be received at present, it has been decided that each applicant must be examined by the medical officer in charge, in order that satisfactory cases may be admitted. Only ambulatory cases will be received.

Patients must be residents of the city of Boston.

Application for admission should be made at the Out-Patient Department of the Boston Sanatorium, No. 48 Rutland Street, Boston, between the hours of 9 and 11 A. M., on Wednesday, July 16, and Saturday, July 19, and every Saturday after that until the full complement of patients has been received.

Letters in regard to patients may be written and addressed to the Superintendent of Nurses at the Out-Patient Department.

The Sanatorium will continue to admit the same sort of non-pulmonary tuberculosis cases of all ages as in the past. It is expected later that separate wards can be set apart for such cases, and that they can be admitted in greater numbers than heretofore.

JOHN F. O'BRIEN,
Chairman, Board of Trustees.

COMMENT ON "A DANGEROUS PRECEDENT."

Editor, Boston Medical and Surgical Journal:

Your Editorial, "A Dangerous Precedent," printed in the May 15th issue, contains statements which show that my plans for Child Health Conservation work during the month of May were misunderstood

As a physician and as a public health official, I am of the opinion that one of my most important duties is to impress upon the public the value and the importance of Preventive Medicine.

The small force of inspectors in this Department can examine but a very small fraction of the one and one half million children of pre-school and school age in one month.

We teach and we preach to the public, the value of periodic examinations.

In the celebration of National Health Day, I made an appeal to all parents of children of pre-school age, advising that every child should receive a physical examination.

Physical examinations of school children, made by inspectors of this Department, aim at detecting communicable diseases and physical defects. When any of these conditions are found, the parents of the children are instructed to consult their private physician.

An analysis of physical defects of children examined on admission to school has led us to the conclusion that these defects should be corrected during the pre-school period. In fact, public authorities agree that the most neglected period of child life, from a public health viewpoint, is the pre-school period. In advising the public to bring their pre-school children to our health stations it is our aim to teach the public the necessity for pre-school examinations.

When children are admitted to the schools of this city each child receives a notice informing the parents that it is their right and privilege to have their children examined by a private physician; otherwise the examination will be made by a Health Department inspector. Only about three per cent. of the parents avail themselves of this privilege.

As time goes on we will accomplish better results by emphasizing the educational and the preventive factors in all our work.

We have stated in all our publications that the Health Department of this city will not encroach on the province of the private physician.

These objects, I am sure, you will find commendable and of service to the public and to the private physician.

Very truly yours,
FRANK J. MONAGHAN, M.D.,
Commissioner of Health.

CONCLUSIONS BASED ON DR. S. B. WOODWARD'S CORRECTION

June 3, 1924.

Editor, Boston Medical and Surgical Journal:
Dear Sir:

In your issue of May 22, you published an interesting correction by Dr. Samuel B. Woodward of figures contained in his pamphlet, "Smallpox Or Vaccination, Which?" regarding smallpox in Lansing, Michigan.

Dr. Woodward's correction of the mistake in figures he had quoted, is very commendable.

Having made the correction showing that instead of 10,557 cases of smallpox in Lansing in three years, there were but 308, he then goes on to state that Michigan had 26,972 cases of smallpox in the eleven years 1913-1923. Doubtless Dr. Woodward overlooked the fact that notwithstanding this large number of cases there were, during the same period, but 108 deaths from smallpox in the state of Michigan, a case death rate of less than one-half of one per cent.

I am sure that your readers would not find cause for serious alarm over the record of a similar number of cases with such a low case death rate in any other disease than smallpox. For instance, we had 23,291 cases of measles in Massachusetts for the year ended November 30, 1922, with 214 deaths. The deaths from measles were more than double the number of deaths from smallpox in Massachusetts in the period cited by Dr. Woodward and the percentage of deaths to cases was considerably higher in the case of measles in Massachusetts than in the case of smallpox in Michigan.

Very truly yours,
HENRY D. NUNN.

EDITORIAL NOTE

We do not expect the eminent counsel of the Medical Liberty League, Inc. to endorse the efforts of the medical profession to reduce the incidence of smallpox by means of vaccination. We are in doubt as to his ability to appreciate the suffering endured by a smallpox patient, even though death does not ensue.

We cannot feel complacent even with a death rate of 108 in a series of 26,972 cases because we know that most of those 108 lives could have been saved. Aside from humanitarian consideration we appreciate the economic loss involved in caring for smallpox patients and the loss to the state of 108 lives. A human life has a definite value.

Contrary to the assumption of Mr. Nunn, we believe that the medical profession does feel a definite concern regarding unnecessary illness and death. He assumes that because the mortality rate in the series of smallpox cases in Michigan was approximately one-half of that recorded in 23,291 cases of measles in Massachusetts that we are not alarmed. His comparison indicates his inability to consider each problem by itself and his assumption that because of a lower death rate in one disease the rate in the other constitutes a greater problem does not seem to us logical.

We must remind him that, at the present time, smallpox is much more amenable to preventive measures than is measles. Even though evidence indicates the development of immunity to measles through the use of serum taken from convalescent cases, we are not yet in a position to make general use of this treatment.

We do not feel that measles is a disease to be lightly considered. Its immediate and somewhat remote dangers are definitely recognized and we hope for more general preventive treatment and this will be used as soon as it is more generally available.

We believe that if vaccination should be abolished we should in a few years have a more serious problem before the country than is now presented by measles.

Mr. Nunn is undoubtedly performing a useful function in one way which consists in bringing forward all objections to medical theories and practices. We are undeserving of public confidence and support if we are unable to meet opposition.

THE PROTEST OF A LAYMAN

Boston, Mass., June 18, 1924.

Editor, Boston Medical and Surgical Journal:

Dear Sir—I am enclosing a clipping of a letter from a man, whom I presume to be a layman, which came out of this morning's *Boston Herald*. It seems to me to be quite good and to express what we know

to be the feeling of many medical men. I am suggesting, if you see fit, that it be published in the JOURNAL.

HENRY A. CHRISTIAN.

A WORD OF PROTEST

To the Editor of The Herald:

A Massachusetts psychiatrist sets forth to Chicago to examine the boy murderers, Loeb and Leopold, and forthwith his name and mission emblazon the front pages of newspapers throughout the land. Fifty more hand-picked experts in psychiatric practice, the world is informed, are engaged to uncover some physical or physiological basis for the contention that the murderers of the boy Franks are insane. Fifty! A formidable army of workers, indeed.

To what end, this gathering up from near and far of specialists? The average citizen sees in this sort of thing a sinister omen: a desperate effort to save these scions of notable families from the consequences of their crime, and to impress and embarrass the minds of jurymen with the latest fantastic theories regarding human conduct, crime, responsibility and moral attitudes.

Doubtless, fifty equally prominent psychiatrists may and probably will be engaged by the State to "show up" the errors and inconsistencies in diagnosis of the defence experts; and the long-suffering public is due for another unedifying spectacle like unto the Thaw trial, when serried ranks of medical experts battled furiously—in the cause of their retainers.

The memory of that event in medical history still remains as a stench in our nostrils.

The spectacle of a contest of this kind is not a pleasing one. It is one in which the mental expert has become a prominent and most offensive figure. Massachusetts, within its own borders, has made such exhibitions impossible by a statute governing the examination of criminals by experts appointed by the Commission on Mental Diseases, whose impartial findings are rendered to the court. Is there no present remedy for the evil-appearing sort of thing that seems about to be staged in connection with this case: this contest of wits and casuistry between hired experts, for so it appears to the average layman?

Where stands the great American Psychiatric Association on this question? And is it not about time for that organization to apply a moral medicine to this mortifying mischief.

AMOS B. TUCKER.

Taunton, June 16.

BEVERLY HOSPITAL, BEVERLY, MASS.

A demonstration clinic was held at the Beverly Hospital Tuesday, June 24, at 4 P. M. The following cases were shown and discussed: Gastric Ulcer, Osteomyelitis, Cholecystitis, Diabetes Mellitus (two cases), Mastoid (two cases).

Doctors were present from the surrounding towns.

RALPH STONE, M.D., *Secretary.*

THE ADVANTAGE OF SUCTION IN ACUTE EMPYEMA OF THE ANTRUM, ETC.

In an article on acute lung abscess (by Drs. G. M. Balboni and E. D. Churchill) in the June 5, 1924 issue of this JOURNAL the writers stress the importance of artificial pneumo thorax in acute lung abscess as a cure.

They quote from J. B. Murphy (1898): "Allow the wall of an abscess to collapse, to empty thoroughly, and it will heal as other abscesses of the same pathological character." In short, evacuate the pus thoroughly. After this is accomplished the inflammatory area will soon come back to normal by the re-establishment of the proper circulatory lymphatic circulations.

True, if a lung abscess has broken into a bronchus, by proper hygiene and supportive treatment even if left alone it may get well, once there is good drainage. The latter, however, being in an upward direction against gravity, will of necessity be very prolonged. It also depends upon how big an opening was made by the rupture.

The writer saw a case of peritonsillar abscess, where the incision was rather small and high up, drain for seven weeks, while a large curved incision for the relief of the peritonsillar abscess on the other side cleared up completely in about four days. The difference in time of recovery in these two cases was evidently due to the method of the drainage. We have decided in this case to remove the tonsils and thus evacuate the pus of what we may call a chronic peritonsillar abscess.

The same principle applies to retro-pharyngeal abscess.

Compression cannot very well be applied in such cases. Inflammatory surfaces do not stand much handling, still less squeezing, and we simply have to rely upon drainage through the incised opening. This is sufficient in these cases as the mucous membranes of the mouth and throat are elastic and have a tendency to draw together and thus serve the purpose of compression.

Now we come to pus enclosed in a bony cavity, the antrum in this case. We cannot very well compress and cause to collapse the walls of this abscess.

The size, form and curves of the antrum are such that drainage is not very favorable, at least in regard to the evacuation of the pus thoroughly at one sitting. Especially is this the case in antra where the floor of the nose is higher than that of the antrum. With suction, however, we have a better chance of evacuating the pus at one sitting and clear up the cavity in a much shorter time.

If we cannot, therefore, use compression to cause collapse of the walls of a bony cavity, then suction could take its place.

JOSEPH PRENN, M.D.

REFERENCES

B. M. and S. Journal, V. 190, No. 23, 1924. G. M. Balboni, E. D. Churchill.
B. M. and S. Journal, V. 173, No. 12, pp. 432-433, 1915.

AMERICAN MEDICAL ASSOCIATION

COUNCIL ON PHARMACY AND CHEMISTRY

Editor, Boston Medical and Surgical Journal:

In addition to the articles enumerated in our letter of May 29 the following have been accepted:

Abbott Laboratories—
  Benzyl Fumarate
Deshell Laboratories—
  Petrolagar:
    Petrolagar (Unsweetened)
    Petrolagar (with Phenolphthalein)
    Petrolagar (Alkaline)
Hoffmann-La Roche Chemical Works—
  Digalen-Roche (Cloetta):
    Ampules Digalen-Roche (Cloetta), 1.1 Cc.
    Tablets Digalen-Roche (Cloetta)
    Hypodermic Tablets Digalen-Roche (Cloetta)
  Oleo-Bi-Roche:
    Ampules Oleo-Bi-Roche, 2 Cc.
Mead Johnson & Co.—
  Mead's Cod Liver Oil
H. A. Metz Laboratories—
  Sulpharsphenamine-Metz:
    Sulpharsphenamine-Metz, 0.05 Gm. Ampules
    Sulpharsphenamine-Metz, 0.075 Gm. Ampules
    Sulpharsphenamine-Metz, 0.1 Gm. Ampules

Sulpharsphenamine-Metz, 0.15 Gm. Ampules
Sulpharsphenamine-Metz, 0.3 Gm. Ampules
Sulpharsphenamine-Metz, 0.45 Gm. Ampules
Sulpharsphenamine-Metz, 0.6 Gm. Ampules
Frederick Stearns & Co.—
Insulin-Stearns:
Insulin-Stearns Single Strength
Insulin-Stearns Double Strength

Yours truly,
W. A. PUCKNER, *Secretary*,
Council on Pharmacy and Chemistry.

AN ACCIDENTAL ADDITION TO THE REPORT OF THE COMMITTEE ON PUBLIC HEALTH

Boston, June 27, 1924.

Editor, Boston Medical and Surgical Journal:

In reading the "Proceedings of the Council" in the JOURNAL of June 26 I was astonished to see the report of the Committee on Public Health followed by a personal memorandum which by some accident and unknown to me was evidently attached to the copy of the Committee's report that I read before the Council and handed to the Secretary.

While the questions appearing in the JOURNAL may suggest the desirability of work to which reference was made in the Public Health Committee's report, they actually represent a portion of a memorandum prepared for my personal reference in connection with another matter, and their appearance in the "Proceedings of the Council" is therefore to be regarded as entirely accidental.

Yours very truly,
VICTOR F. SAFFORD.

NEWS ITEMS

DR. WILLIAM E. CHENERY RESIGNS POSITION.—Dr. William E. Chenery, who for ten years has been Chief of the Nose, Throat and Surgical Departments of the Forsyth Dental Infirmary for Children, has resigned.

THE BEVERLEY HOSPITAL.—A demonstration clinical meeting was held at the Beverly Hospital, Tuesday, June 24th, at 4.00 P. M. Interesting cases were shown and discussion followed.

NEW YORK APPOINTMENT.—Dr. Frederick Fuller Russell, of Brooklyn, has been appointed by the governor of New York to the Public Health Council in place of the late Dr. T. Mitchell Prudden.

DR. FRANCIS G. BENEDICT HONORED.—Dr. Francis G. Benedict, director of the Nutrition Laboratory of the Carnegie Institution, has received the honorary degree of doctor of science from the University of Maine, where he made the Commencement address last month.

BRITISH CANCER CAMPAIGN.—The British Empire Cancer Campaign, through the British Red Cross Society, is appealing for funds to further research on the cause and treatment of cancer. The Cancer Hospital and the research department of the Middlesex Hospital have already received grants amounting to £2,500 each.

MCGILL UNIVERSITY.—The Rockefeller Foundation, according to *Science*, has made a grant of $500,000 to the Medical Faculty of McGill University, and Dr. Jonathan C. Meakins, Christison professor of therapeutics and professor of clinical medicine at Edinburgh University, has been appointed director of the medical clinic to be established in the Royal Victoria Hospital, and will also be professor of medicine and director of the department of medicine of McGill University.

REGISTRATION TO PRACTICE IN MASSACHUSETTS.—Dr. Marian C. Pulmain, a graduate of Johns Hopkins, has been registered by the Massachusetts board under certification by the National Board of Medical Examiners.

ANNOUNCEMENT

DR. ROGER I. LEE announces the opening of his office at 270 Commonwealth Avenue, Boston, Mass.

BIRTH NOTICE

DR. AND MRS. SIDNEY CUSHING WIGGIN announce the birth of a daughter, Alice Pricilla, June 19, 1924.

REMOVALS

DR. ELLIOTT C. CUTLER has removed from Chestnut Hill (Brookline) (Norfolk) to the Lakeside Hospital, Cleveland, Ohio, to assume his new duties in Western Reserve University.

DR. ERNEST D. PILLSBURY has moved from the Middlesex South to the Worcester District and is now at the United States Veterans' Hospital No. 89, Rutland.

DR. JOHN J. CURLEY has moved from Westborough (Worcester) to Leominster (Worcester North) where he has opened an office at 90 Main St.

The Massachusetts Medical Society

SECTION OF OBSTETRICS AND GYNECOLOGY

CHARLES E. MONGAN, M. D., *Chairman*
FREDERICK C. IRVING, M. D., *Secretary*
THOS. R. GOETHALS, M. D., *Clerk*,
Boston Lying-In Hospital, Boston, Mass.

(Communications and questions addressed to the Clerk will be gladly received and cheerfully answered.)

For the month of April, 1924, the following cities of the Commonwealth of over 50,000 inhabitants reported no deaths in the puerperal state; Fall River, Lowell, Somerville, and Holyoke. The deaths reported, exclusive of Boston, were distributed as follows:

Pernicious Vomiting	2
Lobar pneumonia, cardiac dilatation, right ectopic gestation	1
Puerperal Hemorrhage	2
Cesarian Section	2
Acute cardiac dilatation, parturition, high forceps	1
Childbirth, Surgical shock	1
Bronchopneumonia, childbirth	1
Puerperal Septicemia (one following Cesarian)	8
Puerperal thrombosis, embolism, sudden death	3
Puerperal albuminuria	9
Total	30

The attendance at the meeting of the Section at Swampscott on June 6th was extremely gratifying. Not only was the paper of the afternoon by Dr. Studdiford well received and interestingly discussed, but the future program of the Section with regard to investigation of the midwife situation in the Commonwealth and the study of recurrent toxemias of pregnancy aroused a very warm spirit of coöperation among those present. The Section also voted to propose at the meeting of the Council of the American Medical Association that the present method of classifying deaths in the puerperal state in accordance with the International List be amended to conform with the method in use in England and Wales.

In connection with the vaginal examination of the pregnant patient certain observations should be made with regard to the size of the pelvis from within. The importance of routine external measurements has been stressed in an earlier issue of the column, but these are of only partial value if they are not correlated with the internal pelvic examination.

The most important measurement to be ascertained if possible is that of the diagonal conjugate, from the lower border of the symphysis to the promontory of the sacrum. From the diagonal conjugate may be estimated with a fair degree of accuracy the length of the conjugata vera or true conjugate, the distance from the upper border of the symphysis to the sacral promontory. Inasmuch as the true conjugate is the most important diameter of the pelvic inlet, and as marked contractions of the pelvis in this direction give many of the indications for Cesarian section it is important to be able to recognize deviations from the normal as soon as possible. Finally, inasmuch as no good clinical method exists for direct measurement of the true conjugate it must be approached indirectly via the diagonal.

To determine the diagonal conjugate the physician should hold his two examining fingers extended, parallel, and closely approximated; the hand semi-pronated, in which position the radial side of the index finger lies close beneath the symphysis, while the ulnar side of the middle finger rests on the perineum. The elbow should now be dropped somewhat, while the examining hand is pressed steadily upward with the fingers directed behind the cervix toward the patient's umbilicus, the knuckles of the fourth and fifth fingers bearing against the perineum. If the promontory is reached in this way the tip of the middle finger is placed against it, while the point at which the symphysis impinges against the radial side of the index finger is marked by the index fingernail of the right hand; the left hand is then withdrawn, when with the aid of nurse, assistant, or even of the patient herself the distance from the right index fingernail to the tip of the left middle finger is measured by means of a pelvimeter; this measurement is the diagonal conjugate.

If the promontory has not been reached in the manner described, it may be safely assumed that the average-sized baby with average head measurements will pass through the pelvic brim either during the last month of pregnancy or early in labor, and the final decision in the matter should be postponed until the antepartum examination shortly before term.

A discussion of the remaining pelvic measurements and of antepartum examination will appear in an early issue.

DEATH NOTICE

DR. FREDERICK EDWARD CHENEY

Dr. Frederick Edward Cheney of Concord and Boston, ophthalmologist, died July 1, 1924, aged 62, of a carbuncle of the lip.

DR. ROBERT W. LOVETT

Liverpool, July 2.—Dr. Robert Williamson Lovett of Boston died today at the residence of Sir Robert Jones, an eminent Liverpool surgeon, after a few days' illness.

DR. JOHN KELSO WARREN

Dr. John Kelso Warren, founder and president of Hahnemann Hospital, Worcester, died at his home in that city June 26, 1924. He was born in Manchester, N. H., seventy-eight years ago. After completing his studies at the New York Homeopathic Medical College and Flower

Hospital in 1870 he practiced in Palmer, and later studied surgery in London, Paris and Heidelberg. He was a Fellow of the American College of Surgeons, President of the Massachusetts Homeopathic Medical Society in 1905, a past president of the American Surgical and Gynaecological Society and a former instructor in Boston University School of Medicine. He is survived by three daughters, Mrs. Alice Colton of Deland, Fla., and Mrs. Ruth Warren Curtis and Miss Bertha M. Warren, both of Worcester.

OBITUARIES

RESOLUTIONS ON THE DEATH OF DR. GEORGE ADAMS LELAND

ADOPTED BY THE SENIOR STAFF OF THE BOSTON CITY HOSPITAL

DR. GEORGE ADAMS LELAND, Senior Surgeon for Diseases of the Ear and Throat to the Boston City Hospital, died on March 17, 1924, at the Phillips House, following an abdominal operation.

Doctor Leland was a graduate of the Harvard Medical School in the class of 1878, following which he served as a house officer in the Boston City Hospital. He then went abroad where he remained several years as a teacher in Tokio, Japan. After his return to this country in 1881 he soon took up the specialty of otology, and in 1885 was appointed an Assistant Surgeon in that department in the Boston City Hospital. His service there has been continuous until his retirement from active duty by reason of age limitation, since when his valued aid has always been available as adviser and consultant. In his chosen specialty he became an accurate and careful diagnostician and an operator of exceptional skill. He was the inventor of several very useful surgical instruments, and the demonstrator of new methods in diagnosis. He lived during a period when there was rapid advance along all medical and surgical lines, and he was alert to learn and adopt all new methods that were of value in diagnosis and treatment of those diseases coming within his specialty. His skill and ability were early recognized and he soon became a leader in the profession. He was ever kind-hearted and cheerful toward those afflicted with disease, and always sympathetic and helpful toward the house officers who served under him. During his term of service and under his guidance the department of otology was consolidated with that of the nose and throat, as a result of which a higher degree of efficiency was attained for both.

RESOLVED that in the death of Dr. George A. Leland the Boston City Hospital has lost a valuable member of its staff, who was a loyal, progressive, and conscientious worker and organizer. That this resolution be spread upon the records of the staff, and that a copy be sent to his family and to the BOSTON MEDICAL AND SURGICAL JOURNAL.

Boston
June Nineteenth
Nineteen hundred twenty-four

Resolutions adopted at the annual meeting of the Bristol South District Medical Society, regarding

DR. AUGUSTUS W. BUCK

WHEREAS, the Bristol South District of the Massachusetts Medical Society has recently lost from the ranks of its past presidents Doctor Augustus W. Buck, be it resolved:—

That he has upheld and applied in his own practice for more than thirty years the best in the ethics of the profession which example the society and the general profession will greatly miss—

That he has upheld and applied in his own life the best in civics, religious and domestic relations, which example the Society, the profession and the public will greatly miss—

That, therefore, the Society mourns his loss, and in expression of that will spread a copy of these resolutions on its records and send a copy of them to the bereaved family.

Resolutions adopted by the staff of the Union Hospital, Fall River, on the death of Dr. Augustus W. Buck:

WHEREAS, the members of the Staff of the Union Hospital in Fall River have lost an old associate and their President in the death of Dr. Augustus W. Buck, be it resolved

THAT he has given the best of great innate ability and humanitarian motives to the service of the Union Hospital and its previous component institutions for more than thirty years, which service the present hospital can ill afford to lose;

THAT he has given the best of genial character and innate desire for professional progress in his association with other members of the Staff, which association they can ill afford to lose;

THAT, realizing their own great loss, the members of the Staff realize in some degree the irreparable loss to his family of an ideal husband and father; and

THAT a copy of these resolutions be sent to his family and to the press, and be spread upon the records of the Staff.

D. J. FENNELLY, M. D., *Sec'y*
R. W. JACKSON, M. D.
Committee.